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Northamptonshire County Council.

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THIRTY-FIRST  
**Annual Report**

OF THE  
Medical Officer of Health

FOR THE YEAR 1927,

BY

**L. MEREDITH DAVIES**

County Medical Officer of Health.

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KETTERING ;  
NORTHAMPTONSHIRE PRINTING AND PUBLISHING CO.,  
DRYLAND STREET,  
1928.



Northamptonshire County Council.

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1866. 1867. 1868. 1869. 1870.





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Northamptonshire County Council.

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THIRTY-FIRST  
ANNUAL REPORT

OF THE  
Medical Officer of Health  
FOR THE YEAR 1927.

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*To the Chairman and members of the Northamptonshire County Council.*

Mr. Chairman, my Lords, Miss Cartwright, and Gentlemen,

I HAVE the honour to submit the Thirty-first Annual Report on the Public Health of the County of Northampton.

In accordance with the requirements of the Ministry of Health, the Annual Report for 1927 is an ordinary Report of a more simple character than the full Survey Report which I made last year.

For the year 1927 there was a reduction as compared with the previous year in the following:—

Birth Rate and Infantile Mortality Rate.  
Respiratory Diseases (Bronchitis and Pneumonia)  
Cancer, and Zymotic Disease mortalities.



There was a slight increase in the General Death Rate, Maternal Mortality and Tuberculosis Death Rate. The Infantile Mortality Rate is the lowest on record.

There have been no serious outbreaks of infectious disease, with the exception of an epidemic of Influenza.

A small outbreak of Paratyphoid Fever occurred in the County, and was the subject of a special report to the Public Health Committee, which is incorporated in this Report.

Towards the end of the year the Offices of the Public Health Department were moved temporarily to 18, Guildhall Road.

I have again to thank the members of the Council for the consideration they have shown me, and to the members of the staff for their loyal co-operation and assistance.

I have the honour to be

Your obedient servant,

L. MEREDITH DAVIES,

County Medical Officer of Health  
and School Medical Officer.

*June, 1928.*



*Members of the Public Health, Housing, Maternity and Child Welfare Committee.*

The Chairman of the County Council.	W. M. Plevins, Esq. Dr. W. W. Robb (Chairman).
The Vice-Chairman of the County Council.	W. Saddington, Esq. A. H. Sartoris, Esq.
Dr. S. E. Baxter.	W. T. Sears, Esq.
Miss B. A. Cartwright.	J. S. Thompson, Esq.
T. N. Cave, Esq.	F. H. Thornton, Esq.
C. Cross, Esq.	A. J. Walker, Esq.
A. E. Elkington, Esq.	P. Wallis, Esq.
Sir T. Fermor-Hesketh, Bart.	J. B. Whitworth, Esq.
J. Loake, Esq.	Col. H. Wickham.
O. Parker, Esq.	S. York, Esq.

*Co-opted Members of Maternity and Child Welfare Committee.*

Mrs. Andrews.	J. Rippiner, Esq.
Mrs. Britton.	Mrs. Lewin.
Sir J. H. C. Crockett.	Mrs. M. G. Waller.
Mrs. Gawthropp.	Mrs. Wentworth Watson.
(Resigned April, 1927).	Lady Ethel Wickham.
Mrs. S. Harris,	
(from April, 1927).	

*Special Sub-Committee as to Re-organisation and Co-ordination of Health Agencies.*

The Chairman of the County Council.	O. Parker, Esq. Dr. W. W. Robb.
The Vice-Chairman of the County Council.	A. H. Sartoris, Esq. F. H. Thornton, Esq.
Dr. S. E. Baxter.	Mrs. Wentworth Watson.
Miss B. A. Cartwright.	Lady Ethel Wickham.
J. Loake, Esq.	S. York, Esq.



*Standing Sub-Committee* to deal with applications for the supply of milk to expectant and nursing mothers and young children ; for extra nourishment to tuberculous persons ; for fixing the amount of the fee to be recovered from the patient or person responsible in maternity cases where medical assistance is called in by the attending midwife, and the institution of proceedings in cases of the latter.

Miss B. A. Cartwright.	F. H. Thornton, Esq.
Mrs. Gawthropp.	Mrs. M. G. Waller.
(Resigned April, 1927)	S. York, Esq.
Dr. W. W. Robb.	Mrs. M. Lewin.
J. S. Thompson, Esq.	(from April, 1927).

*Rushden House Sanatorium Sub-Committee.*

Dr. S. E. Baxter.	W. Saddington, Esq.
C. Cross, Esq.	A. H. Sartoris, Esq.
J. Loake, Esq.	W. T. Sears, Esq.
W. M. Plevins, Esq.	S. York, Esq.
Dr. W. W. Robb.	
Co-opted Member : Representative of Insurance Committee.	
Dr. L. W. Dryland.	

*Venereal Diseases Propaganda Sub-Committee.*

Dr. S. E. Baxter.	F. H. Thornton, Esq.
Dr. W. W. Robb.	

*Milk and Dairies (Consolidation) Act, 1915 Sub-Committee.*

Dr. W. W. Robb.	F. H. Thornton, Esq.
W. T. Sears, Esq.	P. Wallis, Esq.
J. S. Thompson, Esq.	

STAFF OF THE PUBLIC HEALTH DEPARTMENT.

*County Medical Officer of Health.*

L. Meredith Davies, M.A. (Oxon.), M.D., B.Ch. (Oxon.),  
D.P.H. (Oxon.), M.R.C.S. (Eng.), L.R.C.P. (Lond.).

*Tuberculosis Officer.*

J. R. Caldwell, M.B., Ch.B., resigned 11th September, 1927.

F. O' D. Fawcett, L.R.C.P.I., L.R.C.S.I., D.P.H. (temporary from September 15th to December 13rd, 1927.

R. French, M.D., D.P.H., M.A., from December 5th, 1927.

*Tuberculosis Nurse.*

Miss E. Dashwood.

*Medical Superintendent of Rushden House Sanatorium.*

J. H. Crane, M.B.E., B.A., M.D., Ch.B., B.A.O., D.P.H.

*Matron.*

Miss B. A. Allsop.

*Inspectors of Food and Drugs.*

Southern Division: F. Caulton (Chief Inspector).

Northern Division: { A. E. Waller (Inspector),  
T. A. McLaughlin (Additional Inspector), commenced, temporarily, 13th September, 1926.  
(Permanently, 1st April, 1927).

*Lady Assistant Medical Officer of Health.*

L. S. Greig, M.B., D.P.H.

*Whole-time Health Visiting Staff.*

Miss A. E. Robinson, (Supt.)	Mrs. H. M. Boville
Miss M. E. Whitehouse.	Miss C. K. Gudgin.
Miss F. M. Sharpe	Miss M. H. Meadley
Miss S. L. Wilkins.	Miss V. M. Rayner (temporary
Miss M. Mulrean.	from 17th Jan., 1927).
Miss M. H. Panton.	Miss M. S. Hitchcock (tempor-
Miss S. J. Devers.	ary from 18th Jan., 1927).

*Part-time Health Visitors.*

One Assistant Superintendent of Northamptonshire Nursing Association and thirty District Nurses in the areas of Brackley, Market Harborough and Towcester.

*Clerical Staff.*

T. Mossey (Chief Clerk)	S. D. Lilley.
P. J. Chamberlain	Mrs. A. Sturgess (nee Monk) to
F. D. Chamberlain	March 31st, 1927.
S. E. Bierton.	R. J. Bruce, from 1st April, 1927

## CO-ORDINATION OF HEALTH SERVICES.

**Office Accommodation.**—The branches of the Health Services, which were previously housed in different offices in the County Hall and in Guildhall Road, were brought together during the last week in November, the Tuberculosis Dispensary premises in Guildhall Road being formed into offices for that purpose, and temporary accommodation for the Dispensary provided in Angel Street.

There is now one general office where all records are kept and all correspondence dealt with.

The result is that the Tuberculosis, Maternity and Child Welfare, Mental Deficiency and other records will be readily available for reference by any officer. Further, by this arrangement, the County Medical Officer of Health will be in touch with all branches of the work, except the School Medical Service which is still housed in the Education Offices.

Under the old system with separate staffs detailed for each branch of the work, it was inevitable that at times the staff of one branch might be overburdened while that of another branch was comparatively quiet. Under the new system it will be possible to better equalise the work, and the clerical staff will be dealing with different branches of the Public Health Services, thereby acquiring an all round knowledge and adding to the interest of their work.

**Medical.**—The contemplated amalgamation of the staffs, *i.e.*, the Assistant Medical Officer for Maternity and Child Welfare and the Assistant School Medical Officers, was the



subject during the year of further consideration by the Sub-Committee of the Public Health Committee which is investigating the re-organisation and co-ordination of health agencies, in consultation with representatives of the Education Committee. As a result, it was resolved to recommend that the existing medical staffs engaged on school medical work and maternity and child welfare work be amalgamated in accordance with the proposals outlined in a Memorandum of the County Medical Officer of Health and Secretary for Education. After confirmation by the Public Health and Education Committees the decision of the Sub-Committee was approved by the County Council at their meeting in May. Owing, however, to certain matters in connection with the proposed routine inspection of midwives, etc. by a lay officer, not being finally settled, the scheme of amalgamation has not yet been brought into active operation.

**Nursing.**—Home Visitation is at present carried out.

- (a) Infant visiting by eleven whole-time Health Visitors employed by the County Council, and in three areas by thirty District Nurses and one Assistant Superintendent of the Northamptonshire Nursing Association (under arrangements between the County Council and the Northants. Nursing Association).
- (b) Tuberculosis visiting by one Nurse attached to the Tuberculosis Dispensaries, the whole time Health Visitors of the County Council, and in three areas by thirty District Nurses and one Assistant Superintendent of the Northants. Nursing Association (under arrangements as above).
- (c) School Nursing by one whole time nurse (employed by the Education Committee) in the Wellingborough, Rushden and Higham Ferrers District, and in the remainder of the County by District Nurses under arrangements between the Education Committee and the Northants. Nursing Association.

The whole question of Health Visiting is still under consideration by the Sub-Committee which is investigating the co-ordination and re-organisation of health agencies.

# LIST OF MEDICAL OFFICERS OF HEALTH AT COMMENCEMENT OF 1928.

DISTRICT.	MEDICAL OFFICER OF HEALTH.	RESIDENCE.
URBAN :—		
Brackley (Borough)	G. N. Stathers, M.R.C.S., D.P.H. . .	Brackley
Daventry (Borough)	A. R. Darley M.D. . .	West Haddon.
Higham Ferrers (Borough)	F. D. Crew, M.B. . .	Rugby Higham Ferrers
Burton Latimer	E. L. Warner, M.D., D.P.H. . .	Burton Latimer.
Desborough	H. Gibbons, M.D., J.P. . .	Desborough
Finedon	A. Strachan, M.B. . .	Finedon
Irthlingborough	W. F. Gibb, L.R.C.P. . .	Irthlingborough
Kettering	J. Allison, M.D., D.P.H. . .	Kettering
Oundle	B. R. Turner, M.B. . .	Oundle
Raunds	A. McInnes, M.B., D.P.H. . .	Raunds
Rothwell	J. More, M.R.C.S. . .	Rothwell
Rushden	O. A. J. N. Muriset, M.B. . .	Rushden
Wellingborough	J. Arthur, M.D. . .	Wellingborough
RURAL :—		
Brackley	G. N. Stathers, M.R.C.S., D.P.H. . .	Brackley
Brixworth	R. Winterbotham, M.R.C.S. . .	Brixworth
Crick	A. G. L. Smith, M.R.C.S. . .	Crick
Daventry	A. R. Darley, M.D. . .	West Haddon, Rugby
Easton-on-the-Hill	W. A. Hawes, M.B., D.P.H. . .	Stamford
Gretton	J. E. O'Connor, M.B., D.P.H. . .	Kirby Muxloe, Leicester
Hardingstone	H. F. Percival, O.B.E., M.R.C.S. . .	Northampton
Kettering	L. W. Dryland, M.R.C.S., D.P.H. . .	Kettering
Middleton Cheney	J. I. Johnson, L.R.C.P. . .	Culworth, Banbury
Northampton	H. F. Percival, O.B.E., M.R.C.S. . .	Northampton
Oundle	A. F. Elliott, M.B. . .	Oundle
Oxendon	C. T. Scott, M.D. . .	Market Harborough
Potterspury	A. H. Habgood, D.S.O., M.B., D.P.H. . .	Stony Stratford
Thrapston	A. McInnes, M.B., D.P.H. . .	Raunds
Towcester	H. Roger, M.B., D.P.H. . .	Towcester
Wellingborough	J. Arthur, M.D. . .	Wellingborough

## REPORTS OF MEDICAL OFFICERS OF HEALTH.

The following table shows the date on, and the ultimate or temporary form in, which the respective Annual Reports were received :—

NAME OF DISTRICT.	DATE OF RECEIPT.	FORM.
Gretton Rural	.. 17th March, 1928.	Typed.
Rothwell Urban	.. 4th April,	Printed.
Brackley Rural	.. 10th       ,,       ,,	..
Brackley Borough	.. 16th       ,,       ,,	..
Daventry Borough	.. 16th       ,,       ,,	..
Crick Rural	.. 23rd       ,,       ,,	.. Typed.
Oundle Rural	.. 23rd       ,,       ,,	Printed.
Brixworth Rural	.. 24th       ,,       ,,	..
Towcester Rural	.. 3rd May       ,,	..
Burton Latimer Urban	.. 5th       ,,       ,,	..
Kettering Rural	.. 5th       ,,       ,,	..
Oxendon Rural	.. 7th       ,,       ,,	..
Higham Ferrers Borough	9th       ,,       ,,	..
Daventry Rural	.. 9th       ,,       ,,	..
Potterspury Rural	.. 12th       ,,       ,,	..
Hardingstone Rural	.. 15th       ,,       ,,	..
Northampton Rural	.. 15th       ,,       ,,	..
Desborough Urban	.. 29th       ,,       ,,	..
Raunds Urban	.. 30th       ,,       ,,	..
Thrapston Rural	.. 30th       ,,       ,,	..
Irthlingborough Urban	.. 31st       ,,       ,,	..
Oundle Urban	.. 6th June,       ,,	..
Middleton Cheney Rural	.. 8th       ,,       ,,	..
Kettering Urban	.. 30th       ,,       ,,	..

During the year there were four LOCAL INQUIRIES held by Officers of the Ministry of Health in respect of matters for public health purposes, particulars of which are given on next page :—



# MINISTRY OF HEALTH INQUIRIES.

Date.	District.	Subject.	Result.	Progress of Scheme.
13th May	Wellingborough Urban	Sanction to borrow £7,000 for purposes of water supply	£3,650 sanctioned for buildings £3,350 sanctioned for machinery	Proceeding satisfactorily
20th July	Rushden Urban	Sanction to borrow £1,300 for purchase of about 26 acres of land in Bedford Road, Rushden, for purposes of a refuse tip.	Sanction granted	Land purchased and now in use
5th August	Towcester Rural	Sanction to borrow £500 for purposes of water supply for contributory place of Cold Higham	Loan sanctioned	Completed
8th Nov.	Wellingborough Rural	Sanction to borrow £6,100 for works of sewerage and sewage disposal in the parish of Wollaston	Scheme not yet approved by Ministry of Health	—



## CHIEF VITAL STATISTICS.

The following is a brief summary of the Chief Vital Statistics for the Administrative County for the year 1927 :—

\*Births. 3,108 births were registered, giving a birth-rate of 14.45 per 1,000 of the population.

\***Infantile Mortality.**—The number of deaths under one year of age amounted to 159, which corresponds to a rate of 51 per 1,000 births.

\***Maternal Mortality.**—16 deaths occurred from Child-birth, giving a rate of 5.14 per 1,000 births.

**General Mortality.**—2,539 deaths occurred from All Causes, giving a general death-rate of 11.80 per 1,000 of the population. (Further reference is made later under heading of Mortality).

## NETT EXPENDITURE FOR PUBLIC HEALTH SERVICES.

The product of a penny rate in this County is £5,485.

The cost to the rates of the Public Health Services in the Administrative County for the year ending March 31st, 1927, is as follows :—

	COST TO THE	
	RATE IN £.	RATES PER HEAD.
	d.	d.
Maternity and Child Welfare ..	.53	.. 2.960
(including Midwives Act)		
Venereal Diseases ..	.. .06	.. .307
Tuberculosis ..	.. .84	.. 4.705
General Public Health ..	.. .71	.. 3.984
	<hr/>	<hr/>
Total ..	.. 2.14	11.956
	<hr/>	<hr/>

It will be seen from the above that the total cost of the health services in the County administered by the Public Health Department entails a rate of 2.14d.

\* Further reference to Births, Infantile Mortality and Maternal Mortality is made in the Maternity and Child Welfare section of the Report.

## GENERAL STATISTICS.

**Area.**—There has been no change from the previous year in the area of the Administrative County which is thus 581,679 acres, divided into 13 Urban Districts with an acreage of 42,788 and 16 Rural Districts with an acreage of 538,891.

**Population.**—The population at the Census of 1921 was returned as 211,509. The Registrar-General estimated the population at the middle of 1925 as 215,300 and for the middle of the year 1926 as 214,200 a decrease of 1,100 therefore being shown in 1926 as compared with 1925. Some surprise was expressed by certain Medical Officers of Health in the Urban Districts at the reductions in their areas and this surprise was shared by myself. For the year 1927, the population is estimated at 215,000, or an increase of 800 on the previous year. The population of the Combined Urban Districts is estimated at 101,600 and the Combined Rural Districts at 113,400, showing an increase for the year in the former of 300, against a loss of 600 for the previous year, and in the latter an increase of 500 as against a loss of a similar number in the previous year.

The following information is taken from the Census figures of 1921, and does not include the County Borough of Northampton.

**PRIVATE FAMILIES.**—The number of private families in the Administrative County is 52,286 comprising 205,907 persons; of these, 29,334 are in the Rural Districts comprising 112,476 persons, and 22,952 in the Urban Districts comprising 93,431 persons.

**OCCUPIED DWELLINGS.**—The number of occupied dwellings in the Administrative County is 50,538 with 265,452 occupied rooms; of these, 28,988 are in the Rural Areas with 148,628 occupied rooms and 21,550 in the Urban Areas with 116,824 occupied rooms.

**ROOMS PER PERSON.** In the whole Administrative County the number of rooms per person is 1.28, in the Urban Areas 1.25 and in the Rural Areas 1.32.

## PRINCIPAL OCCUPATIONS IN THE ADMINISTRATIVE COUNTY.

<i>Occupation.</i>	<i>Male.</i>	<i>Female.</i>	<i>Total.</i>
Agriculture .. .. .	16466	511	16977
Mining and Quarrying .. .. .	2224	1	2225
Metal Workers .. .. .	4870	40	4910
Workers in Skin and Leather .. .. .	1757	306	2063
Shoe Operatives .. .. .	12821	6392	19213
Makers of Textile goods and articles of dress (excluding shoe operatives) .. .. .	4215	5723	9938
Makers of Food, Drink and Tobacco .. .. .	1218	87	1305
Workers in Wood .. .. .	2143	29	2172
Makers of, and Workers in, Paper	349	494	843
Builders, etc. .. .. .	3790	6	3796
Painters, etc. .. .. .	814	4	818
Transport Workers .. .. .	5392	254	5646
Commercial (excluding Clerks)	4015	1652	5667
Public Administration and Defence (excluding Professional men and typists) .. .. .	1309	277	1586
Professional Occupation (excluding Clerks) .. .. .	1274	1709	2983
Persons engaged in Personal Ser- vice .. .. .	1628	7532	9160
Clerks, Draughtsmen, Typists (not Civil Service or Local Authority)	1293	1258	2551
Retired or not gainfully occupied	9678	59921	69599
	<hr/> 75256	<hr/> 86196	<hr/> 161452

## GEOLOGICAL AND OTHER FEATURES.

The Administrative County of Northampton is situated almost in the centre of England. It is of irregular shape, and runs from North-East to South-West of England. Its length is about 62 miles and its width varies from 7 to 32 miles.



The County is bounded :—On the West by Warwick and Oxford, on the North by Leicester, Rutland and Soke of Peterborough, on the East by Huntingdon and on the South by Bedford, Buckingham and Oxford. It is well wooded and undulating and has two ranges of hills.

The principal rivers are the Nene and the Welland which flow into the North Sea ; the former has two heads near Daventry, the streams from which join at Northampton and thence form a river passing through Peterborough to the sea ; the latter rises at Sibbertoft and forms the Northern boundary of the County, flowing easterly through Stamford to the sea.

In the South of the County is the Tove which rises at Sulgrave and flows through Towcester to the Ouse.

The Cherwell rises at Charwelton and flows south on the borders of the County and through Banbury.

The Avon rises at Naseby and flows through Welford into Leicestershire.

Northamptonshire belongs to the lower oolite formation and is well supplied with limestone. Throughout a large portion of the County iron-ore occurs. The produce is chiefly grass and corn ; more than one half of the acreage being permanent pasture land. There are many large grazing establishments, and many dairies.

As stated earlier in the Report, the manufacture of boots and shoes is the principal industry.

The County is also noted for its fox-hunting.

The climate is healthy and bracing.

## Summary of General Provisions of Health Services available for Administrative County.

### HOSPITALS AND HOMES.

(1)	GENERAL HOSPITALS.	Beds
	Brackley Cottage Hospital .. .. .	6
	Kettering and District General Hospital ..	79
	Northampton General Hospital .. .. .	231
	Peterborough Infirmary .. .. .	78
	Wellingborough Cottage Hospital .. .. .	23
	In addition to the above, Stamford, Rutland and	
	General Infirmary .. .. .	50
	Horton Infirmary, Banbury .. .. .	54
	Hospital of St. Cross, Rugby .. .. .	100
	are just outside the borders of, and admit cases from, this County.	
(2)	ORTHOPAEDIC HOSPITALS.	
	Manfield Orthopaedic Hospital .. .. .	80
(3)	TUBERCULOSIS HOSPITALS.	
	Rushden House Sanatorium .. .. .	70
(4)	MENTAL HOSPITALS.	
	County Mental Hospital (Berry Wood) .. .. .	950
	St. Andrew's Hospital (Northampton) .. .. .	480
(5)	MATERNITY HOMES.	
	Queen Victoria Nursing Institution, Northampton.	
	Kettering General Hospital.	
	Stamford, Rutland and General Infirmary.	
	Warwickshire County Maternity Home, Rugby.	
	Hospital of St. Cross, Rugby (for complicated cases)	
(6)	INFECTIOUS DISEASES HOSPITALS.	
	Brixworth Rural Isolation Hospital.	
	Daventry Rural Isolation Hospital.	
	Hardingstone Rural Infectious Diseases Hospital.	
	Kettering Joint Isolation Hospital.	
	Oundle Joint Isolation Hospital.	
	Wellingborough Urban Infectious Diseases Hospital	

## (7) INSTITUTIONS FOR UN-MARRIED MOTHERS.

Kettering and District Preventive and Rescue  
Society, Kettering.  
St. Saviour's Home, Northampton.

## (8) VENEREAL DISEASES WARDS :

Northampton General Hospital.  
Peterborough Infirmary.

## (9) CONVALESCENT HOMES.

St. John's Convalescent Home, Weston Favell.  
Northampton General Hospital Convalescent Home,  
Dallington.

## AMBULANCE.

ORDER OF ST. JOHN AND BRITISH RED CROSS SOCIETY  
have HOME SERVICE AMBULANCES  
at Daventry, Desborough, Irthlingborough, Kettering,  
Northampton (2), Rushden, and Wellingborough.

## SPECIAL SCHOOLS, CLINICS, ETC.

## SPECIAL SCHOOLS.

Kettering Special School.  
Mr. Ince Jones' Special School for the Deaf,  
Northampton. (Private).

## MATERNITY AND CHILD WELFARE CENTRES.

Burton Latimer.	Harleston.
Byfield.	Irchester.
Cranford.	Long Buckby.
Cold Ashby.	Moulton.
Daventry.	Rothwell.
Desborough.	Towcester.
Grendon.	Wellingborough.

## TUBERCULOSIS DISPENSARIES. (County Council).

Northampton. Kettering. Wellingborough.

## VENEREAL DISEASES CLINICS.

Northampton General Hospital.  
Peterborough Infirmary.

## NURSING.

## GENERAL.

Northamptonshire Nursing Association.

## MIDWIFERY.

Northamptonshire Nursing Association.

## HEALTH VISITING.

1 Superintendent.

9 Permanent Health Visitors.

2 Temporary Health Visitors.

30 District Nurses.

1 Assistant Superintendent, Northamptonshire  
Nursing Association.

**NURSING OF INFECTIOUS DISEASES.**—There is an arrangement between the Northamptonshire Nursing Association and the County Council for the Nursing of Measles, Whooping Cough and Diarrhoea in young children, as well as cases of Ophthalmia Neonatorum, Puerperal Fever, Puerperal Pyrexia, Cerebro-Spinal Fever and Poliomyelitis, when Measles is not very prevalent.

## LABORATORY.

(1) Chemical. County Analyst, E. W. Voelcker,  
Stuart House, 1, Tudor Street,  
New Bridge Street, London, E.C.

(2) Pathological and  
Bacteriological. Northampton General Hospital.

## MORTALITY.

**General.**—The total number of deaths in and belonging to the County during the year 1927, was 2,539 (1,303 males and 1,236 females). Of these deaths, 1,174 were in the Urban Districts and 1,365 in the Rural Districts.

The death-rate was 11.80 per 1,000 of the population as against 11.37 for the year 1926, and as against an average rate of 11.59 for the five years 1922-26. The rate for England and Wales was 12.3 as against 11.6 for the year 1926, and as against an average rate of 12.1 for the five years 1922-26.



53.2 per cent. of the total deaths in the County were of persons of 65 years of age and upwards.

The death rate in the Combined Urban Districts was 11.55 per 1,000 of the population and ranged from 9.0 in the Oundle and Rothwell Districts to 13.8 in Brackley Borough. For the Combined Rural Districts the rate was 12.03 and ranged from 7.6 in Middleton Cheney District to 15.7 in Oundle District.

Table I. facing this page shows the number of deaths with death rates per 1,000 of the population for each District in the County, and Tables XVII and XVIII at the end of this report show the distribution and causes of death in the several Districts, and the causes of death at different periods of life in the whole Administrative County, respectively, for the year 1927.

**Cancer.**—There were 320 deaths from Cancer during the year 1927 (146 males and 174 females) giving a rate per 1,000 of the population of 1.48, as against 342 deaths and a rate of 1.59 for the year 1926. The Combined Urban Districts had 148 deaths and a rate of 1.45 and the Combined Rural Districts 172 deaths and a rate of 1.51. 57.5 per cent. of the deaths were among people of 65 years of age and upwards.

Table I. facing this page, shows the deaths and death-rates from Cancer in each District of the County.

**Heart and Circulatory Diseases.**—The deaths from these diseases numbered 511 (242 males and 269 females) giving a rate of 2.37 per 1,000 of the population as against 469 deaths and a rate of 2.18. In the Combined Urban Districts there were 240 deaths with a rate of 2.36 and in the Combined Rural Districts 271 deaths with a rate of 2.38. 71.6 per cent. of the deaths were of persons of 65 years of age and upwards.

Table I. facing this page, shows the deaths and death-rates in each District of the County.

**Nephritis.**—There were 53 deaths from Nephritis (29 males and 24 females) giving a rate of 0.24 per 1,000 of the population as compared with 61 deaths and a rate of 0.28 for the year 1926.

TABLE I.

DISTRICTS	Popu- lations.	General Mortality.		Tuber- culosis Mortality.		Respira- tory Diseases Mortality.		Cancer Mortality.		Zymotic Diseases Mortality.		Heart and Circulatory Diseases Mortality.		Nephritis Mortality.		Other Defined Diseases Mortality.	
		Num- ber of D'ths	Rate per 1,000 of popu- lation	Num- ber of D'ths	Rate per 1,000 of popu- lation	Num- ber of D'ths	Rate per 1,000 of popu- lation	Num- ber of D'ths	Rate per 1,000 of popu- lation	Num- ber of D'ths	Rate per 1,000 of popu- lation	Num- ber of D'ths	Rate per 1,000 of popu- lation	Num- ber of D'ths	Rate per 1,000 of popu- lation		
URBAN.																	
BRACKLEY BOROUGH ..	2,171	30	13·8	..	0·00	4	1·84	6	2·76	..	0·00	6	2·76	..	0·00	5	2·30
DAVENTRY BOROUGH ..	3,452	41	11·8	2	0·57	4	1·15	2	0·57	1	0·28	7	2·02	2	0·57	12	3·47
HIGHAM FERRERS BORO. ..	3,120	43	13·7	1	0·32	3	0·96	8	2·56	1	0·32	6	1·92	..	0·00	10	3·20
BURTON LATIMER .. ..	3,505	47	13·4	4	1·14	2	0·57	6	1·71	1	0·28	8	2·28	3	0·85	7	1·99
DESBOROUGH .. ..	4,428	50	11·2	4	0·90	5	1·12	2	0·45	..	0·00	11	2·48	2	0·45	9	2·03
FINEDON .. ..	4,119	53	12·8	8	1·94	6	1·45	4	0·97	..	0·00	14	3·39	1	0·24	8	1·94
IRTHLINGBOROUGH .. ..	4,934	57	11·5	6	1·21	7	1·41	11	2·22	..	0·00	6	1·21	3	0·60	7	1·41
KETTERING .. ..	30,890	366	11·8	48	1·55	52	1·68	53	1·71	6	0·19	69	2·23	8	0·25	46	1·48
OUNDLE .. ..	2,555	23	9·0	1	0·39	2	0·78	4	1·56	..	0·00	8	3·13	1	0·39	3	1·17
RAUNDS .. ..	3,690	37	10·0	1	0·27	6	1·62	..	0·00	1	0·27	7	1·89	1	0·27	10	2·71
ROTHWELL .. ..	4,776	43	9·0	1	0·20	4	0·83	3	0·62	..	0·00	9	1·88	..	0·00	12	2·51
RUSHDEN .. ..	13,550	139	10·2	19	1·40	4	0·29	15	1·10	4	0·29	30	2·21	1	0·07	16	1·18
WELLINGBOROUGH .. ..	20,410	245	12·0	17	0·83	13	0·63	34	1·66	4	0·19	59	2·89	5	0·24	50	2·44
Total of Urban Districts ..	101,600	1,174	11·55	112	1·10	112	1·10	148	1·45	18	0·17	240	2·36	27	0·26	195	1·91
RURAL.																	
BRACKLEY .. ..	6,409	81	12·6	3	0·46	6	0·93	14	2·18	1	0·15	19	2·96	1	0·15	17	2·65
BRIXWORTH .. ..	11,780	149	12·6	12	1·01	17	1·44	26	2·20	1	0·08	19	1·61	1	0·08	42	3·56
CRICK .. ..	2,445	34	13·9	2	0·81	2	0·81	3	1·22	1	0·40	4	1·63	..	0·00	12	4·90
DAVENTRY .. ..	13,750	160	11·6	12	0·87	16	1·16	8	0·58	2	0·14	35	2·54	4	0·29	32	2·32
EASTON .. ..	1,493	16	10·7	1	0·66	4	2·67	2	1·33	1	0·66	1	0·66	..	0·00	5	3·34
GRETTON .. ..	1,360	18	13·2	2	1·47	2	1·47	1	0·73	..	0·00	3	2·20	1	0·73	2	1·47
HARDINGSTONE .. ..	7,532	91	12·0	3	0·39	8	1·06	11	1·46	..	0·00	26	3·45	3	0·39	22	2·92
KETTERING .. ..	9,513	125	13·1	3	0·31	17	1·78	19	1·99	4	0·42	29	3·04	4	0·42	20	2·10
MIDDLETON CHENEY ..	2,360	18	7·6	..	0·00	1	0·42	3	1·27	1	0·42	2	0·84	..	0·00	4	1·69
NORTHAMPTON .. ..	8,774	80	9·1	5	0·56	7	0·79	6	0·68	2	0·22	16	1·82	1	0·11	18	2·05
OUNDLE .. ..	6,472	102	15·7	7	1·08	9	1·39	11	1·69	2	0·30	16	2·47	..	0·00	20	3·09
OXENDON .. ..	3,888	55	14·1	5	1·28	5	1·28	8	2·05	..	0·00	8	2·05	1	0·25	11	2·82
POTTERS PURY .. ..	4,807	60	12·4	2	0·41	7	1·45	9	1·87	..	0·00	9	1·87	1	0·20	12	2·49
THRAPSTON .. ..	10,240	141	13·7	9	0·87	15	1·46	20	1·95	4	0·39	24	2·34	3	0·29	31	3·02
TOWCESTER .. ..	9,887	115	11·6	7	0·70	18	1·82	17	1·71	3	0·30	28	2·83	4	0·40	19	1·92
WELLINGBOROUGH .. ..	12,690	120	9·4	7	0·55	14	1·10	14	1·10	..	0·00	32	2·52	2	0·15	21	1·65
Totals of Rural Districts ..	113,400	1,365	12·03	80	0·70	148	1·30	172	1·51	22	0·19	271	2·38	26	0·22	288	2·53
Administrative County ..	215,000	2,539	11·80	192	0·89	260	1·20	320	1·48	40	0·18	511	2·37	53	0·24	483	2·24





27 deaths were in the Urban Districts and 26 in the Rural Districts.

Table I. facing page 24, gives the deaths and death-rates in each District of the County.

**Respiratory Diseases. (Bronchitis and Pneumonia).**—The deaths from these diseases numbered 260 (136 males and 124 females) giving a rate of 1.20 per 1,000 of the population as against 282 deaths and a rate of 1.31 for the year 1926. The Combined Urban Districts had 112 deaths with a rate of 1.10 and the Combined Rural Districts 148 deaths with a rate of 1.30. Table I. facing page 24, gives the deaths and death-rates in each District in the County.

**Zymotic Diseases.**—There were 40 deaths from these diseases (which include Measles, Scarlet Fever, Diphtheria, Enteric Fever, Whooping Cough, Infantile Diarrhoea and Puerperal Sepsis) against 47 in the year 1926, giving a rate of 0.18 per 1,000 of the population as against 0.21. In the Combined Urban Districts there were 18 deaths which give a rate of 0.17 and in the Combined Rural Districts 22 deaths with a rate of 0.19. Table I., facing page 24, gives the distribution of these deaths in the several Districts.

#### CONTROL OF INFECTIOUS DISEASES.

**Small Pox.**—One case was notified during the year, in January. The patient, who was unvaccinated, had resided at Kettering for about 12 months, and had been in contact with a Smallpox patient in Durham, but the Kettering Authority had not been informed of this. Fortunately, the latter body were able to trace all local contacts, and these were vaccinated. All Districts Medical Officers of Health were notified immediately. The patient recovered, and no further case occurred.

The following Circular letter was addressed to all District Medical Officers of Health following the notification of the Kettering case.

## NORTHAMPTONSHIRE COUNTY COUNCIL.

(PUBLIC HEALTH DEPARTMENT.)

County Hall,  
Northampton,  
22nd January, 1927.

To District Medical Officers  
of Health.

Dear Sir,

## SMALL-POX.

In the year 1925, 5,365 cases of Small-pox were notified in England and Wales, and epidemics have been occurring in certain Counties of England during the last 12 months. In this County, 210 cases were notified in 1925.

During the week ended the 15th instant, 675 cases were notified in England and Wales : of these, 4 occurred at Gainsborough (Lincs.), 5 in Nottinghamshire, and 266 in the West Riding of Yorkshire.

Owing to the geographical position of the Administrative County of Northampton, there is every possibility that cases will be imported from infected Counties : this possibility has materialised, as this morning a case was notified to me from Kettering, which was imported from Durham.

It has been proved conclusively during the last few years that in spite of the difficulties experienced in diagnosing the mild type of disease prevalent, its spread can be limited by efficient and prompt measures by Local Sanitary Authorities. While realising the difficulties which have to be met by part-time Medical Officers of Health, owing to the claims of their private practices, there are certain precautions which should be taken by them to prevent a spread of the disease not only through their own District, but into others. Among the more important actions which should be taken in order to stem an epidemic are :—

1. The arrangement for temporary hospital accommodation.
2. The tracing and supervision of contacts.
3. Vaccination of contacts.
4. The notification to other Medical Officers of Health of contacts leaving a District.
5. The temporary Notification of Chicken-pox.
6. The distribution of leaflets on the prevention of Small-pox, with special reference to Vaccination.

As County Medical Officer of Health, I offer my own services : and further, the services of my medical staff, for tracing contacts ; Vaccination, etc., should the necessity arise. In all cases of doubtful diagnosis, application should be made to the Ministry of Health, by whom a staff of medical men experienced in Small-pox is employed. The Assistant School Medical Officers should prove of invaluable assistance during their School Inspection in maintaining an outlook for undiscovered cases amongst School Children.

The following are the characteristics of the mild type of Small-pox which appeared in 1924-25.

The illness is characterised in the prodromal stage by high fever, prostration, severe constitutional symptoms, headache, pains in back and limbs, and vomiting. (A provisional diagnosis of Influenza is common).

The distribution of the rash is identical with that of ordinary Small-pox, appearing sometimes on the extremities 24 hours after appearing on the face. The evolution of the eruption is regular and conforms with the classical type, but the lesions pass through their successive stages with increased rapidity. On the other hand, they may abort wholly or partly in any stage, suggesting the "cropping" of Chicken-pox.

Yours faithfully,

L. MEREDITH DAVIES,  
County Medical Officer of Health.



Three suspicious cases were seen and examined by me later in the year, but in each instance the diagnosis of Small-pox was not confirmed.

In addition, I received information as to contacts of Small-pox cases from two outside authorities, and the particulars were immediately forwarded to the District Medical Officers concerned.

In view of the fact that considerable numbers of cases of Smallpox occurred in various Counties throughout the year, it was indeed fortunate that this County was limited to one case, and particularly was this so on account of the unvaccinated state of its inhabitants. In respect of the births for the year 1926 (this being the latest year for which the vaccination figures are published) only 16.3 per cent. "Successful Vaccination" Certificates were issued, while 76.9 per cent. "Conscientious Objection" Certificates were granted. The former shows a fall of 1.0 per cent. and the latter a rise of 1.3 per cent. as compared with the year 1925. The total living unvaccinated for the year 1926 (79.4 per cent.) is the highest since 1893, with the exception of the five year period 1918-22 (80.6 per cent.). The Union Districts of Wellingborough, Thrapston, Kettering, Hardingstone, Northampton, and Pottersbury are the most unvaccinated Districts of the County.

The Table facing this page gives an analysis of Vaccination Officers' Returns from 1893-1926.

**Scarlet Fever.**—There was an appreciable drop in the number of cases of Scarlet Fever notified during the year 1927, there being 223 as against 493 in the year 1926, and as against an average of 739 cases for the five years 1922-26. Only one death took place.

The cases occurred regularly throughout the year, and the Rural Districts were responsible for 63.2 per cent. of the total. Finedon Urban and Gretton Rural were the only Districts entirely free of the disease.

Table II., facing page 29, gives the number of notifications of all infectious diseases in each District of the County.



# ANALYSIS OF VACCINATION OFFICERS' RETURNS, 1893-1926.

Unions in the County of Northampton	Percentages of Births in Respective Years.																																	Unions in the County of Northampton.						
	Certificates of "Successful Vaccination."										Certificates of "Conscientious Objection."								Not finally accounted for.								Total Living Unvaccinated.													
	(Col. 1)										(Col. 2)								(Col. 3)								(Col. 2 + Col. 3.)													
	1893-97	1898-1902	1903-1907	1908-1912	1913-1917	1918-1922	1923	1924	1925	1926	1898-1902	1903-1907	1908-1912	1913-1917	1918-1922	1923	1924	1925	1926	1893-97	1898-1902	1903-1907	1908-1912	1913-1917	1918-1922	1923	1924	1925	1926	*1893-97	1898-1902	1903-1907	1908-1912		1913-1917	1918-1922	1923	1924	1925	1926
BRACKLEY ..	39.1	51.3	68.9	30.0	23.7	12.4	39.4	37.8	24.2	23.6	10.7	13.6	47.4	60.4	68.1	52.9	55.4	66.2	67.1	47.7	30.8	9.2	16.7	11.1	13.2	2.9	3.0	5.7	6.1	49.3	41.6	22.8	64.1	71.5	81.3	55.8	58.4	71.9	73.2	BRACKLEY
BRIXWORTH ..	42.9	50.6	58.6	39.3	28.2	15.4	29.4	22.5	30.2	28.2	14.4	20.9	51.6	62.5	68.2	50.7	65.0	57.8	61.7	44.2	28.0	12.9	5.1	3.7	12.9	17.2	10.2	7.8	5.2	49.2	42.5	33.9	56.7	66.2	81.1	67.9	75.2	65.6	66.9	BRIXWORTH
DAVENTRY ..	51.1	56.9	64.3	35.6	23.6	26.0	38.7	34.4	29.7	27.5	15.0	18.4	48.5	61.8	65.5	52.2	56.4	63.4	64.7	36.3	19.8	10.5	9.8	8.8	4.5	5.1	4.3	1.4	5.3	39.4	34.8	28.9	58.4	70.7	70.0	57.3	60.7	64.8	70.0	DAVENTRY
HARDINGSTONE ..	38.5	48.9	47.2	23.5	15.3	10.8	17.0	16.6	14.4	14.3	34.4	41.0	68.7	76.8	82.7	75.7	78.3	79.5	82.1	42.7	8.2	4.3	2.4	2.3	1.9	2.0	1.4	2.8	1.0	51.1	42.7	45.3	71.0	79.2	84.6	77.7	79.7	82.3	83.1	HARDINGSTONE
KETTERING ..	1.6	17.3	28.5	13.2	6.8	5.8	6.6	7.2	9.8	7.6	21.4	51.9	76.9	83.8	85.1	86.6	87.0	83.3	87.2	84.2	47.7	10.2	2.6	2.7	2.9	1.6	1.6	2.1	1.4	84.2	69.2	62.1	79.6	86.5	88.0	88.2	88.6	85.1	88.6	KETTERING
NORTHAMPTON ..	3.7	16.6	24.8	17.2	11.1	8.7	12.4	9.8	12.1	11.3	31.4	56.4	70.5	77.5	80.3	79.6	84.6	80.2	79.9	74.2	39.8	10.1	5.5	5.2	5.7	3.3	2.1	2.0	2.5	83.3	71.2	66.5	76.0	82.8	86.0	82.9	86.7	82.2	82.1	NORTHAMPTON
OUNDLE ..	82.8	85.1	81.4	54.4	32.1	26.0	42.6	46.5	37.2	49.6	3.3	5.2	35.0	54.9	59.3	50.9	50.0	55.8	46.0	9.0	4.8	6.5	5.0	8.2	9.4	3.1	1.3	4.1	2.8	9.2	8.1	11.7	40.0	63.2	68.7	54.0	51.3	59.9	48.8	OUNDLE
*PETERBOROUGH ..	84.0	76.3	77.6	52.4	37.6	30.3	36.9	34.1	29.8	28.4	2.1	4.4	35.1	52.2	60.1	55.9	59.5	64.6	64.4	7.6	11.1	10.2	6.3	4.7	4.4	3.1	1.7	2.0	3.2	7.6	13.2	14.6	41.4	57.0	64.5	59.0	61.2	66.6	67.6	*PETERBOROUGH
POTTERS PURY ..	58.9	57.5	60.4	28.8	20.0	15.5	28.1	18.1	20.5	17.0	27.4	29.7	64.6	74.6	77.9	64.0	78.0	74.5	78.5	29.2	6.1	3.4	1.4	1.2	2.8	1.5	1.0	2.7	.5	33.0	33.5	33.2	66.1	75.9	80.7	65.5	79.0	77.2	79.0	POTTERS PURY
THRAPSTON ..	10.9	38.7	47.2	18.6	15.3	9.7	12.6	12.9	10.0	7.6	43.8	40.9	70.6	76.7	84.8	79.1	82.9	84.8	89.0	72.0	9.9	4.9	7.1	1.6	1.5	4.0	1.2	.	.	79.7	53.7	45.8	77.8	78.4	86.3	83.1	84.1	84.8	89.0	THRAPSTON
TOWCESTER ..	38.9	47.9	49.6	25.0	20.1	15.9	28.8	30.6	23.5	23.9	27.4	29.6	65.8	70.5	75.2	62.3	63.8	65.3	68.4	43.9	16.2	12.5	3.6	2.9	4.0	4.7	1.8	4.5	4.7	50.7	43.6	42.1	69.5	73.4	79.2	67.0	65.6	69.8	73.1	TOWCESTER
WELLINGBOROUGH ..	1.1	16.2	40.5	19.5	8.8	7.5	11.6	9.3	8.1	6.5	22.4	45.5	71.0	82.0	83.9	81.2	80.7	84.9	87.7	82.2	50.8	5.6	2.5	3.6	2.9	2.9	5.4	2.7	2.1	86.4	73.2	51.2	73.5	85.6	86.8	81.1	86.1	87.6	89.8	WELLINGBOROUGH
Means ..	25.7	35.4	46.1	26.3	17.7	14.2	20.4	18.0	17.3	16.3	21.6	37.0	62.3	72.0	75.9	71.6	75.3	75.6	76.9	58.4	32.2	8.7	4.9	4.4	4.7	3.4	2.7	2.5	2.5	62.8	53.9	45.7	67.3	76.5	80.6	75.0	78.0	78.1	79.4	Means

\* In the returns for the years 1893-97 the number of Certificates of Conscientious Objection received in respect of the children born in 1897 has not been included in the Percentages "Not finally accounted for," but allowance has been made for these in the "Total Living Unvaccinated."

† The Soke of Peterborough is a County in itself, and I am therefore much indebted to the courtesy of the Clerk of the Peterborough Union for furnishing me with information for the purposes of this table.

N.B.—The Rural Districts of Crick, Oxendon, Gretton, Easton-on-the-Hill, and Middleton Cheney are included in Unions in the Counties of Warwick, Leicester, Rutland, Lincoln, and Oxford, and do not therefore enter into the above Analysis; on the other hand the Unions of Brackley, Oundle and Thrapston, Potterspury, and Wellingborough, include a few parishes in Bucks. and Oxon., Hunts., Bucks., and Beds. respectively. The Union of Northampton includes the Borough of Northampton, except the parish of Far Cotton, which is included in the Union of Hardingstone.





# CASES OF INFECTIOUS DISEASE NOTIFIED DURING THE YEAR 1927.

(52 weeks ended 31st December, 1927).

TABLE II.

DISEASES.	URBAN DISTRICTS.														RURAL DISTRICTS.														Totals for Administrative County			
	Brackley (Borough)	Daventry (Borough)	Higham Ferrers (Boro')	Burton Latimer	Desborough	Finedon	Irthlingborough	Kettering	Oundle	Raunds	Rothwell	Rushden	Wellingborough	Totals for Combined Urban Districts	Brackley	Brixworth	Crick	Daventry	Easton-on-the-Hill	Gretton	Hardingstone	Kettering	Middleton Cheney	Northampton	Oundle	Oxendon	Potterspury	Thrapston		Towcester	Wellingborough	Totals for Combined Rural Districts
*Small Pox .. ..	—	—	—	—	—	—	—	1	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1
*Scarlet Fever .. ..	1	3	1	2	1	—	8	29	1	4	8	4	20	82	6	22	6	18	3	—	27	8	3	10	5	8	3	11	8	3	141	223
*Diphtheria .. ..	—	1	—	9	—	1	2	18	3	—	7	13	3	57	5	1	—	3	—	—	2	1	—	4	1	—	6	10	5	38	95	
*Enteric Fever .. ..	—	—	—	5	1	4	—	5	—	—	—	—	1	16	—	3	—	2	—	—	1	5	—	—	1	—	1	1	1	15	31	
Puerperal Pyrexia .. ..	—	—	—	—	—	—	—	7	1	—	1	—	3	12	—	—	—	4	—	—	—	2	1	2	—	2	1	2	—	1	15	27
*Puerperal Fever .. ..	—	—	—	2	—	1	—	4	—	—	1	1	2	11	—	—	—	1	—	—	—	—	1	—	1	—	1	—	—	3	14	
*Erysipelas .. ..	—	—	—	—	—	1	—	33	—	—	2	5	4	45	—	4	—	10	—	—	1	7	—	2	1	—	3	3	5	4	40	85
Ophthalmia Neonatorum .. ..	—	—	—	—	—	2	—	9	—	—	—	—	2	13	1	2	—	2	—	—	3	1	—	1	1	1	1	1	1	1	15	28
Cerebro-Spinal Fever .. ..	—	—	—	—	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	1	—	—	1	—	—	—	—	—	—	2	3
Acute Poliomyelitis .. ..	—	—	—	—	—	—	—	—	—	—	—	1	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	1	1	—	2	4
Encephalitis Lethargica .. ..	—	—	—	—	—	—	—	4	—	1	—	1	—	6	—	—	—	—	—	—	1	—	—	—	—	—	—	—	—	—	1	7
Tuberculosis of the Respiratory System .. ..	—	1	5	4	6	11	13	57	2	4	7	24	33	167	2	18	1	12	—	1	10	16	1	15	2	7	6	5	5	7	108	275
Other Forms of Tuberculosis .. ..	—	—	2	2	1	2	2	15	—	2	1	6	6	39	2	1	1	1	—	—	2	3	—	6	1	2	1	3	1	2	26	65
Pneumonia .. ..	1	11	1	2	3	5	28	37	2	8	12	29	5	144	—	7	1	17	—	2	14	13	1	25	—	6	7	10	22	14	139	283
Malaria .. ..	—	—	—	—	—	—	—	1	—	—	—	—	1	2	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	2
Totals .. ..	2	16	9	26	12	27	53	220	9	19	40	84	81	598	16	58	9	70	3	3	62	56	6	66	12	27	21	44	54	38	545	1143

\* The notifications shewn in respect of these diseases are as furnished by the Registrar-General: the remaining notifications shewn on the table are compiled from the weekly Returns of the District Medical Officers of Health.



**Diphtheria.**—The number of cases of Diphtheria was 31 in excess of the year 1926, but was well below the average of 116 for the five years 1922-26. The notifications amounted to 95, of which 57 were in the Rural Districts. The mortality was somewhat high, there being nine deaths or a rate of 9.4 per cent. of the cases. The majority of the cases occurred in the last seven months and were fairly evenly distributed over this period. Four Urban Districts and six Rural Districts had no cases.

**Enteric Fever.**—Thirty-one cases were notified, 16 in the Urban Districts and 15 in the Rural Districts. Eight Urban Districts and a similar number of Rural Districts had no cases. One death occurred. There were 13 cases during the year 1926, and an average of 14 cases for the years 1922-26.

During July and August, owing to the continual occurrence of odd cases of Paratyphoid Fever, I investigated all the known cases, and made the following report to the Public Health Committee in December.

#### REPORT BY COUNTY MEDICAL OFFICER OF HEALTH ON AN OUTBREAK OF PARA-TYPHOID FEVER IN THE ADMINISTRATIVE COUNTY, 1927.

During the first two months of the second half of the year I noticed the continual occurrence of odd cases of Paratyphoid in the weekly notifications from the Medical Officers of Health. As these cases occurred in different districts in the Administrative County I realised that the source of infection could only be discovered by one who had information with regard to all the cases, and this could not be done by the local Medical Officers in whose Districts only a few cases occurred.

I therefore investigated all the known cases myself. Enquiries were made as to the source of all food supplies, and also as to whether any special food such as Shell Fish, Watercress, etc. had been eaten.

## INCIDENCE OF THE DISEASE.

WEEK ENDED.						NUMBER OF	
1927.						CASES.	
2nd July	..	..	..	..	..	2	
9th	..	..	..	..	..	1	
16th	..	..	..	..	..	5	
23rd	..	..	..	..	..	2	
30th	..	..	..	..	..	2	
13th August	..	..	..	..	..	1	
20th	..	..	..	..	..	1	
27th	..	..	..	..	..	1	
3rd September		..	..	..	..	1	
10th	..	..	..	..	..	1	
24th	..	..	..	..	..	1	
1st October	..	..	..	..	..	2	
8th	..	..	..	..	..	2	
10th November			..	..	..	1	
						—	
						23	
						—	

## CHARACTER OF THE OUTBREAK.

There was no sudden outbreak of the disease, the cases being sporadic in character.

## SEX INCIDENCE.

The number of patients was as follows :—Females 15, or 65.2 per cent. ; Males 8, or 34.8 per cent.

## AGE INCIDENCE.

15 or under.		25 or under.		30 or under.		Over 30.	
M.	F.	M.	F.	M.	F.	M.	F.
2	1	3	9	1	3	2	2
—		—		—		—	
3		12		4		4	

Of the twenty-three cases, nineteen were 30 years of age or under, giving a percentage of 81.3 ; while 5 or 62.5 per cent. of the males were 25 years of age or under.

## SYMPTOMS.

The chief symptoms complained of were headache and persistent pyrexia, diarrhoea and constipation appearing equal in frequency. Other symptoms were malaise, back-ache and vomiting.

## BLOOD TESTS.

In all twenty-three cases the re-action to Dreyer's test was positive to *B. Paratyphosus B.* In one patient not included in the list the re-action was positive to both *B. Typhosus* and *B. Paratyphosus B.*

## DISTRICTS IN WHICH CASES OCCURRED.

DISTRICTS.	NUMBER OF CASES.	
	MALE.	FEMALE.
Burton Latimer Urban ..	2	3
Desborough Urban .. ..	-	1
Finedon .. ..	2	1
Kettering .. ..	1	3
Brixworth Rural .. ..	1	1
Daventry .. ..	-	1
Kettering .. ..	1	4
Thrapston .. ..	-	1
Wellingboro .. ..	1	-
	—	—
	8	15
	—	—

Of these, 19 cases lived within a distance of six miles from Kettering. Two cases occurred in one family on four occasions. Three patients were directly infected by relations living in the same house.

## INVESTIGATION.

In view of the fact that the notifications came from various districts and that the outbreak was non-explosive in character, milk and water infection were ruled out almost at once.

Enquiries were made with regard to the consumption of and sources of supply of icecream, watercress, salads and uncooked vegetables, fish and chips, shell fish and tinned foods. The results of these enquiries gave no useful information with regard to the source of infection.

Further enquiries were made as to the supply of water, milk, groceries, fish, meat, bread, sweets, cakes, butter, but here again no source of supply common to all patients could be found. It was significant, however, that the names of two large bakeries occurred on several occasions, but this could only be expected in view of the large number of people supplied by these bakeries.

As nineteen of the twenty-three cases, or 81.3 per cent. lived within a distance of six miles from Kettering, and in view of the fact that Kettering is a large market town and the centre to which the surrounding population would pay regular visits one naturally thought of this town as the source of infection.

The patient from Thrapston was a governess living in the heart of the country and information was obtained that she never took food outside the house nor left the district except on one occasion when she visited her dentist at Kettering; the information was obtained from her that on this occasion she took refreshment at one of the confectioner's shops attached to one of the large bakeries mentioned above.

In view of the fact that of the nineteen cases living in the neighbourhood of Kettering 13 were females and 6 males and that of these six males five were under twenty years of age, one naturally suspected a food supply of the cake and confectionery class, and in view, further, of the frequency with which the names of the two bakeries occurred during the enquiries, and the history of the Thrapston patient, I advised the Medical Officer of Health of Kettering to examine the bloods of the employees who handled the food at the two bakeries.

In Bakery I. twenty-seven employees had their bloods examined, and of these, ten gave a positive re-action to



Paratyphosus B—of these four had been inoculated in the Army with the Typhus Paratyphosus Vaccine, and from three of these four ex-soldiers specimens of urine and faeces were examined and all proved negative. The remaining six employees (3 males and 3 females) had not been inoculated previously and specimens of stools and faeces were examined in each case.

In one case the sample of faeces was positive ; in another, the report was suspicious as it contained the Morgan Bacillus ; the other four were negative.

Of the ten persons giving positive bloods the number of specimens of faeces and stools taken were as follows :—

Number of Cases in which no specimens were taken	..	1
„ „ „ 1 „ „ „	..	2
„ „ „ 2 „ „ „	..	3
„ „ „ 4 „ „ „	..	3
„ „ „ 5 „ „ „	..	1

In Bakery II. twenty-five employees had their blood examined, and of these, six gave a positive result to Paratyphosus B ; as these six had previously been inoculated in the Army and as specimens of faeces and urine from three of them were negative the positive blood result was considered to be an indication of previous inoculation.

Six of the employees in Bakery I. were suspended from work until the result of the first specimen of faeces had been returned, and as only one was negative, five of them returned to work immediately but further specimens of stools were taken from them. The person who had a positive stool was kept away from work and a second specimen sent away which proved negative. She then returned to work and a further two specimens were taken which also gave a negative result. In view of the fact, however, that she had given a positive result previously it was considered advisable to exclude her from work which involved the handling of food stuffs.

Three persons are being kept under strict observation and further specimens will be taken from time to time.

The inoculation of C.R.A. Multivalent vaccine was given to all positives.

Advice was given to the Proprietor of the Bakery with regard to special precautions to be taken by employees on the general cleanliness of the bakery.

Notifications of Paratyphoid ceased in the Kettering District on the 8th October, 1927.

With regard to the employee with the positive stool, aged 20, she had returned to Kettering from employment in Surrey on July 1st, 1927; she did not start at the Bakery until July 27th, 1927. As the first case of Paratyphoid gave a history of illness commencing on the 18th June she could not have been responsible for the infection of the early cases. It is rather significant that this person was employed as Nursemaid in Surrey by a lady whose sister had Paratyphoid in January, 1927, while living in the same house. Enquiries, however, did not go to prove that this was a case of infection there.

In view of the fact, however, that five specimens of blood from other employees in this Bakery who had not been inoculated previously proved positive, one must conclude that these persons had suffered from Paratyphoid. As none of these employees had, however, suffered from any symptom of the disease and had been apparently in good health for some considerable time one must conclude that they had undetected attacks of Paratyphoid during which they continued their work and were a source of infection.

Although, as stated previously, the name of Bakery I. occurred oftener than the other suppliers of food stuffs, it was not a common factor in all nineteen cases in the Kettering District, and as the Bakery in question supplied a large proportion of the neighbouring population it was only to be expected that the name would occur more frequently than

similar suppliers. As three of the nineteen cases which occurred in the Kettering Districts were direct infections, sixteen cases of infection were left to be accounted for.

After the results of the blood tests had come through I made further enquiries laying special emphasis on confectionery and bread. The result of these enquiries has been that all the sixteen had obtained confectionery and bread at more or less regular intervals from this bakery.

The remaining four cases out of the twenty-three had no connection with Kettering, and must be considered as having been infected from some other source.

#### CONCLUSIONS :—

- (1). That Paratyphoid is a far more common disease than one realises.
- (2). That the cases of Paratyphoid which occurred in the District of Kettering were due to the handling of confectionery or bread by employees in Bakery I. who suffered from undetected Paratyphoid.
- (3). The great necessity for legislation whereby persons employed in handling of food stuffs shall be compelled to cleanse their hands before so doing.
- (4). That bread and other food stuffs should be enclosed in sealed wrappers before delivery.

I wish to emphasise the very great assistance rendered to me by the District Medical Officers during the investigation, and especially the Medical Officer of Health and Staff of the Public Health Department at Kettering who have spared no effort in tracing the source of the infection.

L. MEREDITH DAVIES,  
*County Medical Officer of Health.*

7th December, 1927.



**Puerperal Sepsis.**—Twenty-seven cases of Puerperal Pyrexia and fourteen of Puerperal Fever were notified during the year 1927. The Pyrexia cases were fairly evenly divided between the Combined Urban Districts and the Combined Rural Districts, but all except three of the Fever cases were in the Urban Districts. There were eight deaths from Puerperal Sepsis, three in the Urban Districts and five in the Rural Districts. Further reference to this subject is made under Maternal Mortality.

**Erysipelas.**—Eighty-five cases were notified—48 in the Urban Districts and 40 in the Rural Districts—as against 94 for the year 1926.

**Measles.**—Only one death occurred from Measles during the year, as against three deaths in the year 1926. Prevalences were recorded for varying periods in Oundle and Raunds Urban Districts and in certain parishes in Oundle and Oxendon Rural Districts. A few cases were also noted in Finedon Urban and in Parishes in Brixworth and Crick Rural Districts. The majority of the cases occurred in the last week of January, the middle of July and the second week in September.

**Whooping Cough.**—During the year, fourteen children died from Whooping Cough in the County—three in the Urban Districts and 11 in the Rural Districts—as compared with 11 deaths in the year 1926 and 26 deaths in 1925. A special nurse was supplied for one case of Whooping Cough-Pneumonia, under the arrangements between the County Council and the Northamptonshire Nursing Association. The only cases included on the Weekly Infectious Diseases Returns from District Medical Officers of Health were a few in the Crick Rural District.

**Chicken Pox.**—As stated in my last report, there is special importance attached to Chicken Pox during the prevalence of smallpox, and owing to the mild character of the latter disease the diagnosis is often difficult

Notification is permanently notifiable in Hardingstone and Potterspury Rural Districts, and Chicken Pox was compul-



orarily notifiable for varying periods during the year 1927 in Burton Latimer and Kettering Urban Districts, and Daventry and Kettering Rural Districts. Cases notified were as follows - Kettering Urban 225, Daventry Rural 104, Brixworth Rural 34, Kettering Rural 33, Potterspury Rural 31, and fifty cases spread over seven Districts.

**Diarrhoea and Enteritis (under two years of age).**—Six deaths occurred—three in the Urban Districts and three in the Rural Districts—as compared with nine deaths in the year 1926.

**Influenza.**—The unfavourable climatic conditions experienced during the year were, no doubt, largely responsible for the serious rise in the number of deaths from Influenza. There were 176 deaths, of which 83 occurred in the Combined Urban Districts and 93 in the Combined Rural Districts, as against 37 deaths in the year 1926, and as against an average of 64 deaths for the five years 1922-26. Prevalences of the disease were recorded in Burton Latimer, Desborough, Kettering, Oundle and Rothwell Urban Districts, and in certain parishes in Brixworth, Crick, Easton-on-the-Hill, Kettering, Oxendon, Potterspury and Towcester Rural Districts. The majority of the cases occurred between the third week in January and the first week in March, during which period 139 school departments were closed for varying periods.

**Pneumonia. (Acute Primary and Acute Influenzal).**—My remarks under **Influenza** as to the severe climatic conditions, apply with equal force to these diseases. During the year 1927 there were 283 notifications, of which 144 were in the Combined Urban Districts and 139 in the Combined Rural Districts, as against 179 in the year 1926, and as against an average of 181 for the five years 1922-26. From **All forms** of Pneumonia, 100 deaths occurred, 57 in the Combined Urban Districts and 43 in the Combined Rural Districts. This number, in spite of the large increase in the notifications, is lower by 29 than for the year 1926, and by 20 for the five years 1922-26.

**Acute Poliomyelitis.**—Four cases were notified, against seven in the year 1926. No death occurred.

**Encephalitis Lethargica.**—Seven cases were notified, against fifteen in the year 1926. Five cases proved fatal, as against eleven in the previous year.

**Acute Polioencephalitis.**—No case was notified during the year 1927.

**Cerebro-Spinal Fever.**—Three cases were notified and there were two deaths during the year 1927, as against two cases and one death during the year 1926.

Serum and Vaccine and apparatus for their administration to cases, or suspected cases, in the Administrative County, can be obtained from the Pathological Laboratory at the Northampton General Hospital under arrangements made by the County Council, and a special nurse will be supplied for similar cases not removed to hospital, under arrangements made with the Northamptonshire Nursing Association, on application being made to the County Medical Officer of Health.

**Mumps.**—There was some prevalence of this disease in Oundle and Wellingborough Urban Districts, and in certain parishes in Oundle Rural District. A few cases were also recorded in parishes in Crick Rural District.

**Dysentery.**—No cases were reported.

**Malaria.**—One case was notified in the Kettering Urban District and one in the Wellingborough Urban District (both contracted abroad).

**Ophthalmia Neonatorum.**—Twenty-eight cases were notified during the year 1927, as against fifteen cases in the previous year. Further references will be found in the portion of the Report dealing with Maternity and Child Welfare.

#### **School Closures on Account of Infectious Diseases.**

Owing to the severe epidemic of Influenza, which was prevalent throughout the country in the early part of the year, 139 school departments were closed for varying periods.

In addition, Schools were closed for Whooping Cough 3, Measles 3, Scarlet Fever 2, Mumps 2, Chicken Pox 2, and Diphtheria 2.

### INFECTIOUS DISEASES HOSPITALS.

The Isolation Hospitals in respect of which annual grants are made by the County Council are as follows :—

Daventry Rural Isolation Hospital.

Kettering Joint Isolation Hospital.

Oundle Joint Isolation Hospital.

These hospitals were inspected by me during the year and the usual grants recommended towards their establishment expenses.

The following extracts are taken from my Report to the Public Health Committee :—

#### DAVENTRY RURAL ISOLATION HOSPITAL.

1. MAIN BLOCK. This is used for the treatment of Scarlet Fever, but the surgery is still used as an Observation Ward.

The District Council, after consideration of my Report last year that it was undesirable for Diphtheria patients to be treated in the Administrative Block, have decided to house Diphtheria cases in the Cottage ; the result is that the Matron and Staff now occupy the whole of the Administrative Block.

2. COTTAGE. The Cottage is now used for the treatment of Diphtheria and other infectious diseases, excluding Scarlet Fever. A bath and a water closet should be provided.

3. STAFF. In view of the fact that Diphtheria is treated in the Cottage, I suggest that an extra Probationer be employed on the staff.

4. AMBULANCE. The District Council have not adopted my recommendation with regard to the provision of a motor ambulance, and as long distances have sometimes to be covered in order to collect patients, a great deal of time is thus wasted by the Matron and her husband.



5. OUT-BUILDINGS. As mentioned last year, a steam sterilizer should be installed.

6. SEWERAGE PLANT. The septic tanks are in good working order and efficient.

The administration of the Hospital is satisfactory, and the building is kept in excellent condition.

The accommodation of Diphtheria cases in the Cottage can only be regarded as a temporary measure, and the recommendations made last year with regard to the erection of new buildings for the accommodation of Diphtheria cases, Observation Wards, etc. should be carried out at a later date when the financial stringency is not so acute.

#### KETTERING JOINT ISOLATION HOSPITAL.

1. The paths need repairing.

2. NURSES HOME. As stated in last year's Report, this building is damp and the floor in the Maids' Sitting Room needs relaying.

It has been decided to rectify these defects.

3. OBSERVATION BLOCK. This building is to be used exclusively for Night Nurses Quarters. There will be four rooms available, together with bath-room and two w.c.'s; it will supply accommodation for five Nurses.

4. SCARLET FEVER BLOCK. The whole of this building is being re-covered and repaired, the whole floor relaid, and a new grate supplied in the kitchen.

5. DIPHTHERIA BLOCK. The ceilings need renovating and the walls need re-colouring. The tiles surrounding the fires are broken; these repairs are to be carried out in the near future.

In addition, two bath rooms are to be erected—one at each end of the building. I would suggest that both w.c.'s should be tiled and completely separated from the sluice rooms. One sluice sink is very insanitary, as when in use the



walls are soiled ; I would suggest a modern sluice sink be substituted as has already been done in one instance.

More accommodation for linen is needed in this Block.

6. OUT-BUILDINGS. The Laundry is to be re-constructed and enlarged, and new machinery installed.

A large scheme has been prepared for the erection of a Pavilion Block and Cubicle Block for 24 beds, and tenders have already been invited for this work, together with the extensions to the Laundry, addition of bath-rooms, alterations to Discharge Block, and reconstruction of roads and fences, etc.

The Hospital is well administered, and it is gratifying to know that the Kettering Hospital Authority have taken steps to carry out the suggestions made by me in last year's report.

#### OUNDLIE JOINT ISOLATION HOSPITAL.

As pointed out last year, the Scarlet Fever Block needs re-painting outside, and the damp state of the Nurses Home needs attention.

During the year, 15 patients were treated in the Hospital—13 Scarlet Fever, 2 Diphtheria.

The average number of cases treated in Hospital per annum since 1920 is under 14, and I am still of the opinion, expressed last year, that the maintenance of this Hospital is not an economic proposition so long as the number of patients admitted remains so low.

The Hospital buildings and grounds are kept in excellent condition.

### TUBERCULOSIS.

**Notification.**—Some progress was made during the year in the attempt to purge the Registers of Notifications for the County. Since 1913, which was the first year in which District Medical Officers of Health were required to send a list of Tuberculosis notifications each week to the County Medical Officer of Health, 5,794 cases have been notified. As stated in my last Report, it is safe to assume that a very large

proportion of these have died, removed from the County, been cured, or the diagnosis has been agreed by the notifying practitioner to have not been established. The majority of the Urban Registers and several of those for the Rural Districts have been revised, and the cases remaining on the County Register at the end of the year 1927 was \*1,713 as against 1,768 at the end of the year 1926. It is hoped that by the end of the year 1928, the Registers for each District of the County will have been revised, and thus enable me to show a proper index of existing cases of tuberculosis.

The total number of cases of Tuberculosis remaining on the Registers kept by District Medical Officers of Health, at the end of the year 1927 is as follows :—

PULMONARY.			NON-PULMONARY.			Total
Males.	Females.	Total.	Males.	Females.	Total.	Cases.
677	665	1,342	185	186	371	1,713

A copy of the Summary of Notifications as furnished to the Ministry of Health is shown on Table III. attached, and particulars of new cases of Tuberculosis and of all deaths from the disease in the area during 1927 is shown below.

Age Periods		New Cases				Deaths			
		Pulmonary		Non-Pulmonary		Pulmonary		Non-Pulmonary	
		M.	F.	M.	F.	M.	F.	M.	F.
0	..	1	1	1	1	..	..	2	1
1	..	1	1	7	5	1	..	1	2
5	..	15	3	8	8	1	5	3	3
10	..	8	12	..	5	..	..	..	..
15	..	18	27	4	3	15	28	2	1
20	..	20	27	3	3	..	..	..	..
25	..	35	36	5	4	42	34	5	5
35	..	29	19	3	2	..	..	..	..
45	..	17	11	1	4	19	12	1	3
55	..	10	4	2	3	..	..	..	..
65 and upwards		5	1	..	..	4	1	1	..
Totals ..		159	142	34	38	82	80	15	15

\* includes cases for the year 1927, when 340 were notified.

## PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

TABLE III.

Summary of Notifications during the period from the 2nd January, 1927, to the 31st December, 1927, in the County of Northampton.

AGE PERIODS	Notifications on Form A.													Notifications on Form B.					Number of Notifications on Form C.	
	Number of Primary Notifications												Total Notifications on Form A.	No. of Primary Notifications				Total Notifications on Form B.	Poor Law Institutions	Sanatoria
	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Primary Notifications		Under 5	5 to 10	10 to 15	Total Primary Notifications			
Pulmonary Males ..	..	1	15	7	17	20	31	25	16	8	3	143	143	..	..	..	..	..	..	40
„ Females ..	1	1	3	12	26	24	34	18	9	3	1	132	134	..	..	..	..	..	..	37
Non-pulmonary Males ..	..	6	7	..	3	3	5	3	1	2	..	39	31	..	..	..	..	..	..	2
„ Females ..	1	5	8	5	3	2	4	2	3	2	..	35	35	..	..	..	..	..	..	3
<b>Totals ..</b>	<b>2</b>	<b>13</b>	<b>33</b>	<b>24</b>	<b>49</b>	<b>49</b>	<b>74</b>	<b>48</b>	<b>29</b>	<b>15</b>	<b>4</b>	<b>340</b>	<b>343</b>	..	..	..	..	..	..	<b>82</b>
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21

The Primary Notifications on Form A. refer to Notifications by Medical Practitioners (other than School Medical Inspectors) of cases not previously notified. (Column 14 includes Primary and Duplicate Notifications.)

The Primary Notifications on Form B. refer to Notifications by School Medical Inspectors of cases not previously notified. (Column 19 includes Primary and Duplicate Notifications.)

The Notifications on Form C. refer to Notifications by Medical Officers of Poor Law Institutions and Sanatoria of patients who were notified before admission.

## SUPPLEMENTAL RETURN.

NEW cases of Tuberculosis coming to the knowledge of the Medical Officer of Health or Chief (Administrative) Tuberculosis Officer during the period from the 2nd January, 1927, to the 31st December, 1927, *otherwise* than by notification on Form A or Form B under the Public Health (Tuberculosis) Regulations, 1912.

AGE PERIODS	0 to 1	1 to 5	5 to 10	10 to 15	15 to 20	20 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 and upwards	Total Cases
Pulmonary Males ..	1	..	..	1	1	..	4	4	1	2	2	16
„ Females ..	..	..	..	..	1	3	2	1	2	1	..	10
Non-Pulmonary Males ..	1	1	1	..	1	..	..	..	..	..	..	4
„ Females ..	..	..	..	..	..	1	..	..	1	1	..	3

The source from which information as to the above-mentioned cases was obtained is stated below :—

Source of Information	No. of Cases	
	Pulmonary	Non-pulmonary
Death Returns ..	15	5
“ Inward ” Transfers ..	11	2
Other Sources, viz. ..	..	..







Twenty, or 10.4 per cent. of the total deaths from Tuberculosis were not notified before death, the information being obtained from the local Registrars Returns. Enquiries will in future be made in each case, where a death from tuberculosis occurs before notification.

The occupational incidence of new patients, and of contacts found to be suffering from Tuberculosis, who were examined at the Tuberculosis Dispensaries, is shown on Table VII. facing page 48, and particulars as to occupations of patients employed immediately prior to admission to Rushden House Sanatorium, will be found on page 58.

The primary notifications of Tuberculosis (all forms) amounted to 340,—173 males and 167 females. Of this number, 275 (143 males and 132 females) suffered from Respiratory forms of the disease, and 65 (30 males and 35 females) from other forms of tuberculosis. The total notifications are less by 28 than for the year 1926. Table II. facing page 29, shows the cases notified in each District.

**MORTALITY. PULMONARY.**—During the year 1927, 162 deaths (82 males and 80 females) occurred. Of these, 91 belonged to the Urban Districts and 71 to the Rural Districts.

**NON-PULMONARY.**—30 deaths occurred, (15 males and 15 females). Of this number, 21 were in the Urban Districts and 9 in the Rural Districts.

**ALL FORMS.**—There were 192 deaths from all forms of tuberculosis, 112 being in the Urban Districts and 80 in the Rural Districts.

Table I., facing page 24, gives the number of deaths and the death rates from Tuberculosis in the several districts of the County. The Tuberculosis mortality rate for the whole Administrative County was 0.89 per 1,000 of the population, and was only slightly higher than the rates for the years 1922 and 1926 which were 0.88 and 0.76 respectively. These two years were the lowest since the year 1913, prior to which

Respiratory forms of the disease only were included in the tuberculosis mortality statistics.

The mortality rate for the Combined Urban Districts was 1.10 per 1,000 of the population and for the Combined Rural Districts 0.70. The rates varied in the Urban Districts from 0.00 in Brackley Borough to 1.94 in the Finedon District, and in the Rural Districts from 0.00 in the Middleton Cheney District to 1.47 in the Gretton District.

The following Table shews the Classification of Tuberculosis deaths occurring in the Administrative County during the year 1927, taken from the Returns of the local Registrars.

	Male	Female	Total
Lungs .. .. .	79	74	153
Meninges .. .. .	3	6	9
Peritoneum and Intestines ..	5	4	9
Spinal Column .. .. .	—	2	2
Generalized .. .. .	2	—	2
Joints .. .. .	1	—	1
Other Forms .. .. .	3	1	4
Total .. .. .	93	87	180

**PUBLIC HEALTH (PREVENTION OF TUBERCULOSIS) REGULATIONS, 1925.**—No action was necessary by the County Council during the year under these regulations, which gives this County Council (along with certain other County Councils) and local sanitary authorities, powers for the purpose of preventing the employment of persons suffering from pulmonary tuberculosis in occupations in connection with dairies, which would involve the milking of cows, the treatment of milk or the handling of vessels used for containing milk. There was one case, however, of a cowman who gave up his occupation voluntarily, was treated in the Rushden House Sanatorium, and took up other work on his discharge.

**PUBLIC HEALTH ACT, 1925. SECTION 62.**—No action was necessary by this County Council under the powers

given to County Councils and local Sanitary Authorities for the compulsory removal to a hospital or institution of persons suffering from pulmonary tuberculosis of an infectious character, who are a serious risk to others, or whose lodging or accommodation is such that proper precautions to prevent the spread of infection cannot be taken, or in whose case such precautions are not being taken.

#### DISPENSARY WORK.

Towards the end of the year the Main Offices of the Public Health Department were transferred to the Tuberculosis Dispensary, 18, Guildhall Road, Northampton, and temporary premises were acquired for the Dispensary at 7, Angel Street, Northampton.

At Kettering, Cranford House, Lower Street, was vacated, and a new Dispensary opened in Market Street.

Addresses etc. of the three County Tuberculosis Dispensaries are as follows :—

- |     |                |    |                                   |
|-----|----------------|----|-----------------------------------|
| (1) | Northampton    | .. | 7, Angel Street, Northampton.     |
|     |                |    | 9.30 a.m. to 12 noon Saturdays.   |
| (2) | Kettering      | .. | Market Street, Kettering.         |
|     |                |    | 10 a.m. to 3.30 p.m. Fridays.     |
| (3) | Wellingborough |    | 108, Midland Rd., Wellingborough. |
|     |                |    | 10 a.m. to 3.30 p.m. Wednesdays   |
|     | Ditto.         | .. | Ultra Violet Light Clinic.        |
|     |                |    | 9.30 a.m. to 2.0 p.m. Mondays.    |

Tuberculosis Officer :—

R. French, B.A., M.D., Ch.B., D.P.H.



Table IV. shows that during the year 1,047 patients visited the three Dispensaries and made a total of 2,628 visits, or an average of about 2.5 visits per patient. This number is exclusive of 1,544 attendances made by patients for treatment by Ultra Violet Radiation at Wellingborough Tuberculosis Dispensary.

TABLE IV.

Number of Patients who attended the Tuberculosis Dispensaries during 1927			Number of attendances made at the Dispensaries during 1927.			
			Male	Female	Ex- Service	Total
Northampton	..	254	289	207	51	547
Kettering	..	365	525	402	114	1041
Wellingborough	..	428	413	437	190	1040
Total	..	1047	1227	1046	355	2628

1,544 attendances (not included in above) were made at Wellingborough Tuberculosis Dispensary for Treatment by Ultra-Violet Radiation during 1927.

Table V. on next page is given for the purpose of comparison and shows the work of each Dispensary as regards new cases, total patients and attendances made for each of the years 1925-27. It will be seen that there were over 100 more new cases in 1927 than during the year 1925, and when it is remembered that no new case is seen without the consent of the patient's own Medical Attendant, it will readily be realised that the General Practitioner is making full use of the services of the Tuberculosis Officer.

Table VI. shows that 439 new patients presented themselves for examination at the Dispensaries for the first time during 1927. Of these, 207 or 47.1 per cent. were diagnosed before the end of the year as suffering from definite tuberculous disease; 9 were considered to be doubtfully tuber-



TABLE V.  
DISPENSARY ATTENDANCES  
for the years 1925, 1926 and 1927.

	1925			1926			1927		
	New cases	Total patients	Attendances	New cases	Total patients	Attendances	New cases	Total patients	Attendances
Northampton .. ..	119	217	462	151	263	595	137	254	547
Kettering .. ..	127	368	1114	144	304	1163	227	365	1041
Wellingborough .. ..	242	523	1589	254	532	1604	229	428	1040
<b>Totals ..</b>	<b>488</b>	<b>1108</b>	<b>3165</b>	<b>549</b>	<b>1099</b>	<b>3362</b>	<b>593</b>	<b>1047</b>	<b>2628</b>

In addition to the above, 302 attendances were made at the Wellingborough Tuberculosis Dispensary for treatment by Ultra Violet Radiation during the year 1926 and 1544 during 1927.

culous and remained under observation at the Dispensaries, and 223 or 50.9 per cent. either revealed no evidence of tuberculosis or, after a period of observation, were considered not to be tuberculous.

It shows further that 154 Contacts were examined during the year in addition to the 439 New patients. Of these, 25 or 16.2 per cent. were found to be suffering from definite tuberculous disease and 129 or 83.8 per cent. were considered not to be tuberculous.

The number of visits made by the Tuberculosis Officer to patients in their own homes during the year was 269.

Table VII. shows the occupational incidence of the 232 new patients who were found to be suffering from tuberculosis. It will be noted that 67 or 28.8 per cent. were engaged in the Boot and Shoe Industry. This would naturally be expected in an area where the Boot and Shoe trade constitutes the staple industry and no inference can therefore be drawn from this figure alone that the incidence of tuberculosis in the Boot and Shoe Industry is unduly high.

At the end of 1926, 52 cases of tuberculosis were written off the register as cured and 162 cases were considered to be arrested.

During 1927, an additional 35 cases were transferred from the 'arrested' to the 'cured' class and written off the register.

Although only 94 cases are shown as arrested in the returns on Tables VIII. and IX. made to the Ministry of Health in accordance with the regulations, this does not mean that the remaining 33 cases had again become active, since for one reason or another, the condition of many of them could not be ascertained during the year, and it is probable that the total number of arrested cases is even larger than that shown last year.

An endeavour is now being made to keep in touch with all cases on the register and to examine each one at least once during the year.

TABLE VI.

Return showing the work of the Dispensaries during the year 1927.

*DIAGNOSIS.	Pulmonary				Non-pulmonary				Total				Grand Total	
	Adults		Children		Adults		Children		Adults		Children			
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		
A.—New Cases examined during the year (excluding contacts) :—														
(a) Definitely tuberculous ..	79	65	10	8	8	12	8	8	87	77	18	16	198	
(b) Doubtfully tuberculous ..	—	—	—	—	—	—	—	—	9	7	5	5	26	
(c) Non-tuberculous .. ..	—	—	—	—	—	—	—	—	56	42	72	45	215	439
B.—Contacts examined during the year :—														
(a) Definitely tuberculous ..	6	4	2	7	1	—	2	2	7	4	4	9	24	
(b) Doubtfully tuberculous ..	—	—	—	—	—	—	—	—	2	1	2	1	6	
(c) Non-tuberculous .. ..	—	—	—	—	—	—	—	—	12	23	51	38	124	154
C.—Cases written off the Dispensary Register as—														
(a) Cured .. .. .	15	13	2	—	1	—	4	—	16	13	6	—	35	
(b) Diagnosis not confirmed or non-tuberculous (including cancellation of cases notified in error) .. .. .	—	—	—	—	—	—	—	—	77	78	132	90	377	412
D.—Number of Persons on Dispensary Register on December 31st:—														
(a) Diagnosis completed ..	289	221	68	61	23	22	29	18	312	243	97	79	731	
(b) Diagnosis not completed ..	—	—	—	—	—	—	—	—	4	2	—	3	9	740

1. Number of persons on Dispensary Register on January 1st .. .. .	785	9. Number of patients to whom Dental Treatment was given, at or in connection with the Dispensary .. .. .	—
2. Number of patients transferred from other areas and of "lost sight of" cases returned .. .. .	35	10. Number of consultations with medical practitioners :—	
3. Number of patients transferred to other areas and cases "lost sight of" .. .. .	152	(a) At Homes of Applicants .. .. .	55
4. Died during the year .. .. .	109	(b) Otherwise .. .. .	291
5. Number of observation cases under A (b) and B (b) above in which period of observation exceeded 2 months .. .. .	6	11. Number of other visits by Tuberculosis Officers to Homes .. .. .	214
6. Number of attendances at the Dispensary (including Contacts) .. .. .	4172	12. Number of visits by Nurses or Health Visitors to Homes for Dispensary purposes .. .. .	3006
7. Number of attendances of non-pulmonary cases at Orthopaedic Out-stations for treatment or supervision .. .. .	—	13. Number of—	
8. Number of attendances, at General Hospitals or other Institutions approved for the purpose, of patients for—		(a) Specimens of sputum, etc., examined ..	181
(a) "Light" treatment .. .. .	1544	(b) X-ray examinations made in connection with Dispensary work .. .. .	2
(b) Other special forms of treatment ..	—	14. Number of Insured Persons on Dispensary Register on the 31st December .. .. .	435
		15. Number of Insured Persons under Domiciliary Treatment on the 31st December .. .. .	155
		16. Number of reports received during the year in respect of Insured Persons :—	
		(a) Form G.P. 17 .. .. .	6
		(b) Form G.P. 36 .. .. .	24





### Occupational Incidence of the 171 New Patients found to be suffering from Pulmonary Tuberculosis.

### Occupational Incidence of the 20 Contacts found to be suffering from Pulmonary Tuberculosis.

**Occupational Incidence of the 41 Patients, including 5 Contacts found to be suffering from other forms of Tuberculosis.**

Total	..	232
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# PULMONARY TUBERCULOSIS.

TABLE VIII.

Return showing in summary form the condition of all Patients whose case records were in the possession of the Dispensaries at the end of 1927, arranged according to the years in which the Patients first came under Public Medical Treatment for pulmonary tuberculosis.

Condition at the time of the last record made during the year to which the Return relates				Previous to 1926					1926					1927				
				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus				Class T.B. minus	Class T.B. plus			
					Group 1	Group 2	Group 3	Total (Class T.B. plus)		Group 1	Group 2	Group 3	Total (Class T.B. plus)		Group 1	Group 2	Group 3	Total (Class T.B. plus)
Alive	Discharged as cured	Adults	M.	31	2	1	..	3										
			F.	27	..	..	..	..										
		Children	M.	6	1	..	..	1										
			F.	6	1	..	..	1										
	Disease arrested	Adults	M.	28	8	3	..	11										
			F.	26	1	2	..	3										
		Children	M.	10	..	..	..	..										
			F.	7	..	..	..	..										
	Disease not arrested	Adults	M.	36	10	44	..	54	33	14	16	3	33	34	13	13	10	36
			F.	27	6	14	2	22	41	10	9	5	24	30	7	12	8	27
		Children	M.	15	..	1	..	1	24	..	..	..	..	12	..	..	..	..
			F.	14	..	2	1	3	14	1	..	..	1	13	..	..	..	..
Condition not ascertained during the year				43	..	16	1	17										
Lost Sight of or otherwise removed from Dispensary Register				89	15	13	7	35	21	..	4	1	5	4	..	1	..	1
Dead	Adults	M.	5	9	38	15	62	5	1	4	16	21	5	1	4	7	12	
		F.	4	..	14	11	25	10	..	3	19	22	4	..	3	8	11	
	Children	M.	..	..	1	..	1	1	..	1	..	1	1	..	..	..	..	
		F.	2	..	1	..	1	1	..	..	..	..	3	..	..	..	..	
Totals				376	53	150	37	240	150	26	37	44	107	106	21	33	33	87





# NON-PULMONARY TUBERCULOSIS.

TABLE IX.

Return showing in summary form the condition of all Patients whose case records were in the possession of the Dispensaries at the end of 1927, arranged according to the years in which the Patients first came under Public Medical Treatment.

Condition at the time of the last record made during the year to which the Return relates				Previous to 1926					1926					1927					
				Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	Bones and Joints	Abdominal	Other Organs	Peripheral Glands	Total	
Alive	Discharged as cured	Adults	M.	5	..	..	..	5											
			F.	1	..	2	..	3											
		Chil-dren	M.	3	..	..	1	4											
			F.	..	..	..	..	..											
	Disease arrested	Adults	M.	3	..	..	..	3											
			F.	1	..	..	1	2											
		Chil-dren	M.	1	1	2	..	4											
			F.	..	..	..	..	..											
	Disease not arrested	Adults	M.	5	..	1	1	7	2	..	1	1	4	5	..	2	2	9	
			F.	..	..	4	..	4	..	1	2	..	3	3	1	7	1	12	
		Chil-dren	M.	2	..	2	..	4	3	1	..	7	11	5	..	..	4	9	
			F.	2	..	..	1	3	3	2	1	1	7	5	..	..	3	8	
	Transferred to Pulmonary																		
	Condition not ascertained during the year				..	..	1	1	2										
	Lost Sight of or otherwise removed from Dispensary Register				8	1	1	7	17	2	1	..	1	4	1	..	..	..	1
	Dead	Adults	M.							..	1	..	..	1					
F.			1	..	1	..	2												
Chil-dren		M.							..	..	2	..	2	1	..	..	..	1	
		F.												1	..	1	..	2	
Totals .. ..				32	2	14	12	60	10	6	6	10	32	21	1	10	10	42	



Of the 593 cases who presented themselves for examination for the first time during 1927, 193 were found to be suffering from Pulmonary Tuberculosis and 42 were found to be suffering from Non-Pulmonary Tuberculosis ; the former were placed in the following categories :—

Sputum negative for Tubercle Bacilli	106	or	54.9	per cent
„ positive „ „ Group 1.	21	or	10.8	„
„ „ „ „ „ 2.	33	or	17.1	„
„ „ „ „ „ 3.	33	or	17.1	„

The 42 Non-Pulmonary cases were classified as follows :—

Bones and Joints	..	21	or	50	per cent.
Abdominal	..	1	or	2.4	„
Other Organs	..	10	or	23.8	„
Peripheral Glands	..	10	or	23.8	„

#### DISPENSARY TREATMENT BY ULTRA VIOLET RADIATION.

Treatment was continued at Wellingborough Tuberculosis Dispensary throughout the year with one Jesionek lamp for general irradiation and one Kromayer lamp for local applications.

98 cases attended during the year, sub-divided as follows, with the results of treatment as shown :—

LUPUS. 21 cases.

Healed .....	5
Improved (2 subsequently died of pulmonary disease)	11
Stationary .....	4
Made insufficient attendances .....	1

TUBERCULOUS PERIPHERAL GLANDS WITH SINUSES, KELOID  
OR SCROFULODEMA. 10 cases.

Healed .....	8
Made insufficient attendances .....	2

TUBERCULOUS PERIPHERAL GLANDS WITHOUT SUPPURATION.  
4 cases.

Glands disappeared .....	1
Improved, evidenced chiefly by gain in weight ....	2
Made insufficient attendances .....	1

PULMONARY TUBERCULOSIS. 22 cases.

Improved .....	6
Stationary .....	9
Deteriorated .....	3
Made insufficient attendances .....	4

BONE AND JOINT DISEASE. 5 cases.

Improved .....	2
Stationary .....	3

LARYNGEAL TUBERCULOSIS. 3 cases.

Improved .....	2
Made insufficient attendances .....	1

ABDOMINAL TUBERCLE. 2 cases.

Improved .....	2
----------------	---

PRE-TUBERCULOUS CHILDREN. 29 cases.

Improved .....	18
Stationary .....	8
Made insufficient attendances .....	3



Two cases of skin disease associated with pulmonary tuberculosis were also treated—one facial eczema without improvement, and one of furunculosis which became healed.

It seems evident that the most striking improvement is manifested in the case of tuberculous glands with discharging sinuses. Cases of lupus benefit to a somewhat less, though quite definite, extent, while the value of the treatment in cases of pulmonary disease is doubtful. This observation agrees with that of other workers.

In the case of pre-tuberculous children the improvement is manifested chiefly by gain in weight, but it has to be remembered on the one hand that children tend to gain weight naturally, and on the other that many of those who fail to gain weight do so because of the handicap imposed by poor home conditions and bad habits, for which no amount of treatment by Ultra Violet Rays can compensate.

#### PATHOLOGICAL SPECIMENS.

During the year, 181 specimens of sputum were examined for the presence of Tubercle Bacilli ; of this number 44 were positive and 137 negative.

#### THE PURPOSE OF A TUBERCULOSIS SCHEME.

Tuberculosis schemes were started throughout the country largely with a view to the treatment of established cases of tuberculosis, and the schemes were so arranged that treatment could be given to all discovered cases at the earliest possible moment in the course of the disease. It should not be forgotten, however, that the ultimate object of all work in the tuberculosis field is the stamping out of this disease and that prevention of the disease is of the first importance towards the attainment of this object.

The most conspicuous feature of a tuberculosis scheme is the provision of a Sanatorium to which early cases of tuberculosis can be sent and doubtless, in that it produces arrest of some of these cases with consequent disappearance of infect-

ivity, the Sanatorium plays a part of no small importance in the prevention of further cases. Nevertheless, the prime function of the Sanatorium is concerned with the treatment of the disease in individuals, whereas the prevention of the disease is a communal rather than an individual problem.

Efforts have been concentrated in the past on the detection of early cases, but it must be confessed that they have not been crowned with that measure of success which it was hoped they would achieve, and there has always been considerable difficulty in finding a middle way between the courses of, on the one hand, diagnosing the presence of the disease before it exists, and, on the other, of waiting until treatment of the condition is unlikely to be successful. It has to be admitted that the proportion of undoubted early cases seen by the Tuberculosis Officer is small. In the past it has been customary to blame in varying degrees the general practitioner for not suspecting the presence of the disease sufficiently early and the patient for not consulting his Doctor sufficiently early after the onset of the symptoms. It is generally conceded that such fault as there may be lies as a rule with the patient, but it is quite possible that in a large number of cases, no fault exists on either side. While it is probable that the established clinical disease develops from a small focus, it may be well that its actual clinical onset is more rapid than has been supposed and that a considerable area of lung tissue may be attacked at once. Thus in the clinical course of many cases it is possible that there hardly was a time when the signs were not extensive. In other words, a small focus of disease may smoulder for a time in a deep-seated gland where it cannot be detected, but the onset of symptoms of disease caused by a spread from that gland may be accompanied by the more or less sudden involvement of a large area of lung tissue, and however early the case was seen after the onset of definite symptoms it would have to be regarded as more or less advanced.

However this may be, a certain proportion of treated early cases inevitably become advanced and a large proportion of

cases are advanced when first seen. Since the advanced case is a far more potent agent in the spread of infection than the early case, it is obvious that one step which might be taken towards the prevention of the disease is the provision of more institutional accommodation for advanced cases.

Another potential source of danger is the chronic type of case with constantly active disease which runs a long course before it completely disables the patient. Efforts have been made to deal with this type of case by the establishment of colonies on the lines of Papworth, and there is no doubt that extremely useful work has been done in this way. At the same time, such measures have definite limitations and it is doubtful if the expense of establishing large numbers of colonies would be justified.

So far, the question of prevention has been dealt with at what may be termed the wrong end of the scale. What of the other end ? Can anything be done for individuals in potential danger, who do not actually suffer from tuberculosis in a definite recognisable form ? A patient presents himself for examination having a suspicious appearance, but no definite diagnosis of tuberculosis can be made. Such patient cannot be sent to a Sanatorium, which is an institution for the treatment of the established disease, but might it not be money well spent to send such an individual to an institution where his strength could be built up in a comparatively short time, thus rendering him a useful working member of the community, and possibly preventing the onset of tuberculosis and consequent years of ill-health and costly treatment ? Similar institutions are in existence in Germany and America (Preventoria), to which persons who are "run down" can go for a month or six weeks and where Sanatorium rules are adopted.

This matter is of peculiar interest in the case of children. It is well known that children but rarely suffer from chronic pulmonary tuberculosis as it is known in adults, but it is probable that infection occurs in childhood producing in some cases surgical tuberculosis, in others, happily more rarely,



acute pulmonary disease with hopeless prognosis and in the large majority a debilitated condition which it is difficult and often impossible to distinguish from other similar conditions. The term "pre-tuberculous" is used by many to denote such cases and is presumably intended to indicate that many such cases develop tuberculosis in later life. While it may be granted that the term has been useful in furthering the treatment of these children with a view to the prevention of the onset of definite tuberculosis, it may not be out of place to protest against its too facile use, and to point out that these children by reason of their debilitated condition are rendered susceptible to the attack of any disease and not merely to attack by tuberculosis.

Doubtless when they happen to be in contact with tuberculosis, that is the disease to which they will most likely fall a prey and much might be done towards the prevention of the disease in such cases by a more extensive adoption of the "Grancher" system. There are many difficulties in the way of this, but difficulties have had to be surmounted in most schemes for the prevention of the disease.

Apart from contact with tuberculosis, however, much could be done for these children, and possibly much tuberculosis might be prevented, by the more extensive adoption of Open Air Schools : and not only by the adoption of Open-Air Schools as they are more generally understood, but by the adoption of Open-Air Schools on residential lines, where children could be housed for one or two years and educated at the same time without actually needing medical treatment. It cannot be too strongly emphasised that the debilitated condition of many of these children is caused by improper home habits and conditions and no amount of treatment by Ultra Violet Rays, cod liver oil, etc., is going to counteract these.

It may be held that all these schemes would be expensive, but when it is remembered how expensive the treatment of an established case of tuberculosis can be, surely money spent in the prevention of the disease would be money well spent and would be money ultimately saved.



## TREATMENT OF TUBERCULOSIS IN INSTITUTIONS.

## PULMONARY.

## (RUSHDEN HOUSE SANATORIUM.)

During the year 1927, 70 beds have been available for treatment of patients suffering from Pulmonary Tuberculosis. As heretofore, these beds were allocated as follows :—60 beds for patients from the area of the County, 2 beds for Ex-Service men, 6 beds (3 male and 3 female) for London County Council patients, and 2 beds for paying patients and emergencies. An extra London County Council patient occupied one of the beds for paying patients, for a good part of the year. An average of 67.8 beds has been occupied during the year.

The new residence for the Medical Superintendent was completed early in the year and occupied by him. His late residence was taken over by the gardener, and the gardener's house taken by the stoker.

During the year the County Surveyor renovated the paths immediately around the Sanatorium buildings, and in the kitchen garden. This has made a great improvement in the appearance of the grounds, and in the cleanliness of the pavilions. It is hoped during the coming year to renovate the front drive.

Vita Glass was installed in the recreation room of the children's pavilion.

As heretofore, patients on admission are classified in accordance with Memorandum 37 T. into Class T.B. minus and Class T.B. plus, Groups 1, 2, 3. The returns showing (1) the classification of patients admitted during the year (2) the average number of beds available for patients and (3) the extent of Residential Treatment are also in accordance with this Memorandum.

## CLASSIFICATION OF PATIENTS ADMITTED DURING 1927.

	Males	Females	Children	Total
* Class T.B. minus ..	21	27	18	66
**Class T.B. plus :				
Group 1 ..	1	2	0	3
Group 2 ..	21	15	0	36
Group 3 ..	28	24	0	52
Non-Pulmonary ..	1	0	1	2
Total ..	72	68	19	159

\* Class T.B. minus—

Cases in which tubercle bacilli have not yet been demonstrated in the sputum; such cases are transferable to T.B. plus if and when the bacilli are found.

\*\*Class T.B. plus—

Cases in which tubercle bacilli have been demonstrated. Grouped to indicate (1) slight, (2) marked, (3) profound systemic disturbance.

## AVERAGE NUMBER OF BEDS AVAILABLE FOR PATIENTS DURING THE YEAR 1927.

	Observation	Pulmonary Tuberculosis		Non-pulmonary Tuberculosis		Total
		Sana- torium	Hos- pital	Disease of Bones & Joints	Other Condi- tions	
Adult Males .. ..	..	21	7	..	..	28
Adult Females .. ..	..	21	7	..	..	28
Children under 15 ..	..	14	..	..	..	14
Total .. ..	..	56	14	..	..	70

No beds are actually kept for observation cases, but accommodation can be made for such cases when required.

One adult case of Tubercular knee joint and one child with Tubercular Peritonitis were treated in the pavilions in Pulmonary beds.

ANNUAL RETURN SHOWING EXTENT OF RESIDENTIAL  
TREATMENT DURING 1927. (Memo 37/T).

		In Insti- tution on Jan. 1st	Ad- mitted during year	Dis- charged during year	Died in Institu- tion	In Institu- tion on Dec. 31st	
No. of Patients	Adults	M.	27	72	68	4	27
		F.	28	68	62	7	27
	Children	M.	7	9	9	—	7
		F.	7	10	9	1	7

ANNUAL RETURN SHOWING EXTENT OF RESIDENTIAL  
TREATMENT DURING 1927. (Ex-Service Pensioners).

Disease Quiescent	Improved	No Material Improvem'nt	Died	Still In Instit't'n	Total
2	6	—	1	1	10

In the following Table is set out the occupations, in which patients are stated to have been employed immediately prior to admission.

Occupation.	Males.	Occupation.	Females.
Boot and Shoe Operative	32	Boot and Shoe Operative	10
Clerk .. ..	4	Housewife .. ..	27
Labourer .. ..	8	Garter & Legging Factory	1
Joiner .. ..	1	Box Factory .. ..	1
Coal Porter .. ..	1	Piano Maker .. ..	1
Clothing Factory .. ..	2	Mantlemaker .. ..	1
Carpenter .. ..	1	Coffee Mill & Soup Factory	1
Tailor .. ..	1	Domestic Servant .. ..	11
Greengrocer .. ..	1	Tailoress .. ..	1
Railway Porter .. ..	1	Manageress Café .. ..	1
Milkman .. ..	1	Clothing Factory .. ..	10
Grocer's Assistant .. ..	1	Barmaid .. ..	1
Wagon Repairer .. ..	1	Laundrymaid .. ..	1
Traveller .. ..	1	Shop Assistant (Books) .. ..	1
Railway Clerk .. ..	1	School Girl .. ..	10
Railway Guard .. ..	1		
Gardener .. ..	2		
Insurance Agent .. ..	1		
Currier .. ..	1		
Chauffeur Gardener .. ..	1		
Lampman (Railway) .. ..	1		
Draper's Assistant .. ..	1		
Shop Assistant (Books) .. ..	1		
Blacksmith .. ..	1		
Bricklayer .. ..	1		
Furnace Filler .. ..	1		
Sailor .. ..	1		
Chauffeur .. ..	1		
Last Maker .. ..	1		
Schoolboy .. ..	9		
Total ..	81	Total ..	78

GRADUATED EXERCISE.—As previously, this has been carried out according to grades, the work being divided up into five grades, with differently coloured cards for each grade. The Medical Superintendent grades each patient according to his or her fitness for a particular grade, and all work and exercise is carried out directly under his supervision.



The graduated labour undertaken consists of (1) Gardening and Agriculture (2) Poultry Keeping and Pig Farming (3) Joinery, Carpentry and Painting.

GARDENING AND AGRICULTURE.—Under the direct supervision of the Medical Superintendent, those patients who are fit receive regular daily instruction from the gardener. Every endeavour is made to make the patients take an interest in this work, with very gratifying results. They receive instruction in the hothouses, gardens, orchards and other grounds around the Sanatorium.

Special Demonstrations are given each year in pruning, grafting and spraying of fruit trees, and in the grading and packing of fruit for sale and for show purposes, by the County Horticultural Superintendent and the Gardener. We are able to supply the wants of the Sanatorium as regards fruit and vegetables and to sell a fair amount in addition.

We again secured some prizes at the County Agricultural Show.

POULTRY AND PIG FARMING. The gardener gives the patients useful instruction in the rearing, feeding and general management of fowls, an incubator and rearer being kept for the purpose. We have been able to keep the Sanatorium fully supplied with eggs during the year, and had a surplus for sale.

Instruction is also given in the feeding and management of pigs.

JOINERY, CARPENTRY AND PAINTING.—With the help of the ‘handy man’ and any skilled workmen who happen to be undergoing treatment, patients assist in general repairs and work around the Sanatorium, such as masonry, painting, carpentry, glazing, etc., but nothing of a skilled nature is undertaken. They have once again carried out some very useful work during the course of the year.

BOOT REPAIRS.—Patients continue to make use of the set of shoemakers tools provided for them, in carrying out minor repairs to their boots and shoes.

SCHOOL.—Two female patients gave the Medical Superintendent valuable assistance during the year, in the instruction of the children. These women had of course, no sputum.

I am glad to be able to report once again that both male and female patients have given most willing and useful assistance in the upkeep of buildings and grounds, and have taken a real interest in this work.

The admission and discharge of all patients is notified on forms C and D to the Medical Officer of Health of their district and also to the County Medical Officer of Health (and Medical Officer of Health, London County Council regarding London patients) on special forms.

The admission and discharge of children is notified to the Local Education Authority by the County Medical Officer of Health.

Notification of all discharges is made to the Northamptonshire Nursing Association, the County Councillor for the district in which the patient resides, and to local Social Service Leagues, etc. (if any) by the County Medical Officer of Health.

Prior to their discharge from the Sanatorium, all patients receive printed instructions to report to the Tuberculosis Officer at the nearest dispensary before returning to work or school.

The Medical Superintendent encourages all Ex-patients to keep in touch with him, and it is very encouraging how many have done so, during the year, either by a personal visit, letter or messages sent with friends.

The Sanatorium has many good friends in the County, including Ex-patients who take a keen interest in its welfare and keep it well supplied with books, magazines, games, toys,

etc., and to those kind people, the Medical Superintendent is deeply grateful. He hopes from such a source to get a full sized billiard table for the men next year.

Once again the Farm and Garden has been run at a profit, as it has been since the opening of the Sanatorium.

### NON-PULMONARY TUBERCULOSIS.

For the financial year ended March 31st, 1928, a sum of £1,400 was allowed in the estimates for the Institutional treatment of persons suffering from these forms of the disease. This is an increase of £350 as compared with the previous year.

The actual amount expended was £1,269, and £164 was received as contributions towards cost of maintenance from patients, or other persons responsible for their support.

Seven patients were already in Institution on January 1st, and 14 (including 1 Ex-Soldier) were admitted during the year, making a total of 21 cases who received Institutional treatment

Treatment was completed in 8 cases during the year as follows :—

Quiescent and Arrested .....	2
Improved .....	3
Died in Institution .....	1
Discharged as Non-Tuberculous .....	2

The following are Institutions to which patients are sent :

Manfield Orthopaedic Hospital, Northampton.

Royal Sea-Bathing Hospital, Margate.

Wingfield Orthopaedic Hospital, Headington, Oxon.

Heatherwood Hospital, Ascot.

Royal National Orthopaedic Hospital, Middlesex.

Stamford, Rutland and General Infirmary, Stamford.

It is noteworthy that each of the 21 Non-Pulmonary cases who received Institutional treatment during the year came under the heading of Tuberculous Bones and Joints.

The number of Adults and Children with their sex incidence is shown as follows :—

	ADULTS.		CHILDREN.		TOTAL.
	Male	Female	Male	Female	
Tuberculous Bones and					
Joints . .	5	4	10	2	21

Before patients are admitted to Institutions enquiries are made as to the financial circumstances of the family, and the appropriate Sub-Committee considers what contributions (if any) shall be made towards the cost of treatment.

Of the total cases treated, 12 were of children under 16 years of age.

There were 7 cases on the Waiting List at the end of the year.



TABLE X.

RETURN SHOWING THE EXTENT OF RESIDENTIAL TREATMENT  
(PULMONARY AND NON-PULMONARY)  
DURING THE YEAR 1927.

			In Insti- tutions on Jan. 1	Ad- mitted during the year	Dis- charged during the year	Died in the Insti- tutions	In Insti- tutions on Dec 31.
Number of Patients	Adults	{ M.	22	65	55	4	28
		{ F.	26	54	49	7	24
	Chil- dren	{ M.	*13	13	*11	1	14
		{ F.	8	12	11	1	8
Number of Observation Cases	Adults	{ M.	..	..	..	..	..
		{ F.	..	1	1	..	..
	Chil- dren	{ M.	..	1	1	..	..
		{ F.	..	..	..	..	..
Total ..			69	146	128	13	74

\* One male child attained the age of 15 whilst in Institution.

Table X. shows the extent of Residential Treatment of all forms of Tuberculosis. At the commencement of the year 1927, 69 patients were in institutions; 146 were admitted during the year; 128 were discharged, 13 died, and 74 patients remained in institutions at the end of the year.

The average period of treatment of the 128 patients discharged, and of the 13 who died in institutions during the year was 173.7 days; the longest period being 611 days and the shortest 6 days.

Table XI. shows in detail the immediate results of Institutional Treatment ; classification of each patient on admission ; condition at time of discharge and the duration of treatment in each case.

The pulmonary cases come under one of four heads, viz :—

Class T.B. minus,

„ „ plus, Group I,

„ „ „ „ II,

„ „ „ „ III.

It might be well to explain here that the classes are constituted as follows :—

CLASS T.B. MINUS.—Cases in which tubercle bacilli have never been demonstrated in the sputum.

CLASS T.B. PLUS.—Cases in which tubercle bacilli have at any time been found.

CLASS T.B. PLUS, GROUP I.—Cases with slight constitutional disturbance, if any ; *e.g.*, there should not be marked acceleration of pulse nor elevation of temperature except of very transient duration : gastro-intestinal disturbance or emaciation, if present, should not be excessive. The obvious physical signs should be of very limited extent.

No complication (tuberculous or other) of prognostic gravity should be present.

CLASS T.B. PLUS, GROUP III.—Cases with profound systemic disturbance or constitutional deterioration ; with marked impairment of function, either local or general, and with little or no prospect of recovery.

## INSTITUTIONAL TREATMENT.

TABLE XI.

Return showing the immediate results of treatment of patients and of observation of doubtful cases discharged from Residential Institutions during the year 1927.

[illegible]





All cases with grave complications, whether tuberculous or not, are classified in this Group, *e.g.*, diabetes, tuberculosis of larynx or intestine, etc.

CLASS T.B. PLUS, GROUP II.—All cases which cannot be placed in Groups I. and III.

#### HOME VISITATION OF TUBERCULOSIS PATIENTS.

During the year 1927, the total number of visits paid by the Tuberculosis Nurse, Health Visitors, and District Nurses to the homes of tuberculous patients was 3,006.

#### EXTRA NOURISHMENT.

The amount included in the estimates for the year 1927-28 was £140. Extra nourishment mainly in the form of milk was supplied to 27 tuberculous patients on the recommendation of the Tuberculosis Officer as against 38 such patients in the preceding financial year. The total payments in respect of this service amounted to £104 11s. 7d., as against £104 13s. 1d. for the year 1926-27.

#### SHELTERS.

The number of Open-Air Shelters occupied by tuberculous patients during the year was 19. All these are the property of the County Council. Ten of the Shelters were transferred to different parts of the County during the year. The Shelters are loaned to patients on the advice of the Tuberculosis Officer. It might be well to note here that the repeated taking down of the Shelters, removing and reassembling for the use of other patients, plays no small part in their depreciation ; this, coupled with the fact that all except two of the Shelters have been in use for over 12 years, (the other two being nine years old) explains the increased cost of their maintenance during the financial year 1927-28. The amount allowed in the estimates for this purpose (£20) was increased later in the year to £45.

## MATERNITY AND CHILD WELFARE.

## BIRTHS.

The number of births registered in the County during the year 1927, was 3,108 (1,568 males and 1,540 females), which is fewer by 285 than the births for the year 1926. Of the total number of births, 157 were illegitimate (74 males and 83 females) or 5.05 per cent.

The birth rate for the County during the year 1927 was 14.45 per 1,000 of the population, as against 15.84 for the year 1926, and except for the year 1918 (14.34) is the lowest ever recorded. The Combined Urban Districts show the biggest fall, being 1.89 lower than the previous year, against a fall of 0.73 for the Combined Rural Districts.

The rate for England and Wales for the year 1927 was 16.7, or 2.25 higher than that for this County.

Table XIII. on page 71 shows the births and birth rates for each of the Districts in the County.

The highest birth-rate in the Urban Districts was at Desborough (18.7) and the lowest at Oundle (8.2). In the Rural Districts, the highest was in Northampton (20.4) and the lowest in Crick (10.2).

NOTIFICATION OF BIRTHS.—The year 1927 was the first complete year for the administration of the Notification of Births Acts by the County Council, and a comparison with the number of live births notified with those registered shows a difference of 98 in favour of the latter. Warning notices were sent to parents, midwives, and medical practitioners, in cases where notification had not been made, and it is hoped that the difference between the births notified and those registered will be considerably reduced in future years. Table XII. on next page shows the number of birth notifications in each District of the County.

TABLE XII.

DISTRICT	Births notified during the year 1927 by				Totals		No. of live births not notified	
	Drs. & P'r'nts	by Midwives						
	Live	Still- born	Live	Still- born	Live	Still- born	Minus	Plus
<b>URBAN.</b>								
Brackley ..	2	..	30	1	32	1	..	1
Daventry ..	22	1	25	..	47	1	2	..
Higham F'rs	22	..	16	..	38	..	1	..
Burton L'm'r	41	3	4	..	45	3	..	4
Desborough	84	4	..	..	84	4	..	1
Finedon ..	25	2	34	..	59	2	..	..
Irthlingboro'	47	..	29	..	76	..	3	..
Oundle ..	8	..	10	2	18	2	3	..
Raunds ..	22	1	21	1	43	2	..	2
Rothwell ..	58	1	..	..	58	1	..	..
Rushden ..	98	4	74	2	172	6	2	..
Wellingboro'	174	4	124	2	298	6	..	7
<b>RURAL.</b>								
Brackley ..	32	1	63	..	95	1	3	..
Brixworth ..	38	2	104	..	142	2	11	..
Crick ..	21	..	6	..	27	..	..	2
Daventry ..	104	6	96	3	200	9	26	..
Easton ..	10	..	14	1	24	1	5	..
Gretton ..	6	..	13	1	19	1	..	3
Hard'gstone	29	1	78	1	107	2	6	..
Kettering ..	40	1	71	2	111	3	4	..
Midd. Cheney	15	..	16	..	31	..	3	..
Northampton	101	4	63	2	164	6	15	..
Oundle ..	17	..	73	2	90	2	9	..
Oxendon ..	24	..	36	1	60	1	7	..
Potterspury	34	..	32	..	66	..	3	..
Thrapston ..	58	..	89	6	147	6	12	..
Towcester ..	43	2	107	1	150	3	..	6
Wellingboro'	80	1	86	..	166	1	9	..
<b>Total ..</b>	<b>1255</b>	<b>38</b>	<b>1314</b>	<b>28</b>	<b>2569</b>	<b>66</b>	<b>124</b>	<b>26</b>



STILLBIRTHS.—Stillbirths were reported on by the Health Visitors in 73 cases, and from the information so obtained the following conclusions were arrived at. In 40 cases the death appeared to have been intra-natal, the subjoined abnormalities having presented themselves:—

Malpresentation .....	18
Asphyxia and Ante-partum haemorrhage	7
Prolonged and difficult labour .....	5
Premature and precipitate labour	
*(B.B.A.) .....	4
Suffocation *(B.B.A.) .....	1
Contracted Pelvis .....	3
Eclampsia .....	2
	<hr/>
	40
	<hr/>

\* Born before arrival of attendant.

In 25 cases the death appeared not to have been intra-natal. In 8 cases the death was unaccountable.

The midwives' returns show 22 male and 15 female stillbirths, 2.3 per cent. of all confinements attended, or slightly less than in 1926.

REGISTRATION OF STILLBIRTHS.—By the coming into force of the Births and Deaths Registration Act, 1926, on July 1st, 1927, registration of Stillbirths by the Registrars of Births and Deaths was made compulsory from that date. It is also provided that no stillborn child may be buried in a burial ground until a certificate of the registration of the stillbirth has been obtained from the Registrar of Births and Deaths and delivered to the person having control of the burial ground.

Prior to the coming into force of the above-mentioned Act, stillbirths were *notifiable* only, under the provisions of the Notification of Births Act, 1907.



#### CREMATION OF THE REMAINS OF STILLBORN CHILDREN.

In August a Circular was issued by the Ministry of Health to Local Supervising Authorities under the Midwives Acts stating that it was understood to be the practice in some Maternity Institutions to dispose of the remains of stillborn children by incineration on the premises, and asking that the attention of the Authorities of the Maternity Homes in their areas be drawn to certain provisions of the Cremation Act, 1902, and the Cremation Regulations, 1920, which, in effect, provide that no cremation of human remains shall take place except in a crematorium of the opening of which notice has been given to the Secretary of State, and in accordance with the Regulations made by the Secretary of State. (The expression "human remains" includes the remains of a still-born child).

The keepers of Maternity Homes in this County were notified accordingly.

INFANTILE MORTALITY.—The number of deaths of infants under one year of age during the year 1927 amounted to 159 (86 males and 73 females) 16 of which were illegitimate. The total infant deaths were almost exactly divided between the Combined Urban Districts (79) and the Combined Rural Districts (80).

The Infantile Mortality rate per 1,000 births was 51.15, which is the lowest rate on record for the County. The rate for the years 1926 and 1924 was 52., and the average rates for the five year periods 1922-26 and 1917-21 were 55 and 71 respectively.

The rate for England and Wales for the year 1927 was 69, for the year 1926, 70, and for the two five year periods 1922-26 and 1917-21, 73 and 89 respectively.

For the year 1927, the Infantile Mortality rates varied in the Urban Districts from 0.0 per 1,000 births in the Burton Latimer and Oundle Districts to 153.8 in Higham Ferrers Borough, and in the Rural Districts from 0.0 in the Easton-

on-the-Hill and Gretton Districts to 75.4 in the Thrapston District.

In the Combined Urban Districts the rate was 56.14, and in the Combined Rural Districts 47.03.

Table XIII. on next page shows the number of infantile deaths with rates per 1,000 births for each District in the County.

Table XIV. attached, gives the results of investigations made by Health Visitors as to deaths in their areas.

OPHTHALMIA NEONATORUM. — As stated earlier in the Report, twenty-eight cases of Ophthalmia Neonatorum were reported during the year 1927, as against fifteen cases in the year 1926. Thirteen of these were in the Urban Districts, and fifteen in the Rural Districts. This number is higher than recorded in any previous year, but the increase is undoubtedly due to more efficient notification. Since 1919, the number notified has been 17, 27, 15, 20, 14, 14, 14, 15. One case has lost the sight of both eyes. Twenty-four cases were visited.

Notified.	Treated		Vision	Vision	Total
	At Home.	In Hospital.	Unimpaired.	Impaired.	Blindness.
28	23	*5	27	—	1

A special Nurse was provided in one case.

A history of vaginal discharge was obtained before labour in five cases, a history of Ophthalmia Neonatorum in a previous confinement in one, and history of gonorrhoea in the father in one case.

Under the Public Health (Ophthalmia Neonatorum) Regulations, 1926, arrangements have been made for (a) the admission of the infant, or the mother with infant, to Northampton General Hospital, Stamford, Rutland and General Infirmary, or Hospital of St. Cross, Rugby, and (b) for Nursing

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\* Includes 2 born in hospital.



SUMMARISED TABLE OF DEATHS OF INFANTS.

TABLE XIV.

Causes of Death	Under 1 Month	1 Month and under 2 Months	2 Months and under 3 Months	3 Months and under 4 Months	4 Months and under 5 Months	5 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Months	Total Deaths under 1 Year	1 Year and under 2 Years	2 Years and under 3 Years	3 Years and under 4 Years	4 Years and under 5 Years	Total Deaths over 1 and under 5 years	Grand Total	Causes of Death
WHOLE-TIME HEALTH VISITOR AREAS																WHOLE-TIME HEALTH VISITOR AREAS
Premature Birth .. ..	25	1	..	..	..	..	..	..	26	..	..	..	..	..	26	Premature Birth
Atrophy, Debility and Marasmus .. ..	2	1	..	..	..	..	2	..	5	..	..	..	..	..	5	Atrophy, Debility and Marasmus
Congenital Heart Disease ..	9	..	1	..	..	..	..	..	10	1	..	..	..	1	11	Congenital Heart Disease
"    Malformation .. ..	1	2	..	..	..	..	..	..	3	..	..	..	..	..	3	"    Malformation
Convulsions .. ..	2	..	..	..	1	..	..	1	4	1	..	..	..	1	5	Convulsions
Meningitis .. ..	..	..	1	..	..	1	1	..	3	2	..	..	..	2	5	Meningitis
Bronchitis .. ..	1	1	..	..	1	..	..	2	5	..	..	..	..	..	5	Bronchitis
Broncho-pneumonia and pneumonia .. ..	3	2	1	..	..	1	4	2	13	6	1	1	..	8	21	Broncho-pneumonia and pneumonia
Whooping Cough .. ..	1	..	2	..	..	..	1	..	4	2	..	1	..	3	7	Whooping Cough
Measles .. ..	1	..	..	..	..	..	..	..	1	1	..	..	..	1	2	Measles
Diphtheria .. ..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	Diphtheria
Rheumatic Fever .. ..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	Rheumatic Fever
Enteritis .. ..	..	..	..	..	..	..	..	2	2	..	..	..	..	..	2	Enteritis
Jaundice .. ..	1	1	..	..	..	..	..	..	2	..	..	..	..	..	2	Jaundice
Congenital Specific Disease ..	1	..	1	..	..	..	..	..	2	..	..	..	..	..	2	Congenital Specific Disease
Suffocation .. ..	3	..	..	..	..	..	..	..	3	..	..	..	..	..	3	Suffocation
Septicaemia .. ..	..	..	..	..	1	..	..	1	2	..	..	..	..	..	2	Septicaemia
Hydrocephalus .. ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	Hydrocephalus
Accident .. ..	1	..	..	..	..	..	..	..	1	..	1	1	..	2	3	Accident
Injury at Birth .. ..	3	..	..	..	..	..	..	..	3	..	..	..	..	..	3	Injury at Birth
Intussusception .. ..	1	..	..	..	..	..	1	..	2	..	..	..	..	..	2	Intussusception
Haemorrhage .. ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	Haemorrhage
Atelectasis .. ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	Atelectasis
Unknown .. ..	2	..	..	..	..	..	..	..	2	..	..	..	..	..	2	Unknown
Influenza .. ..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	1	Influenza
Congestion of Lungs .. ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	Congestion of Lungs
Totals .. ..	61	8	6	1	3	2	9	9	99	13	2	4	..	19	118	Totals
DISTRICT NURSE HEALTH VISITOR AREAS																DIS. NURSE HEALTH VISITOR AREAS
Prematurity .. ..	6	..	..	..	..	..	..	..	6	..	..	..	..	..	6	Prematurity
Asphyxia .. ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	Asphyxia
Suffocation .. ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	Suffocation
Congenital Heart Disease ..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	Congenital Heart Disease
Bronchitis .. ..	..	..	..	..	..	..	2	1	3	..	..	1	..	1	4	Bronchitis
Broncho-pneumonia and pneumonia .. ..	..	1	..	..	..	..	1	..	2	1	1	..	..	2	4	Broncho-pneumonia and pneumonia
Influenza .. ..	..	1	..	..	..	..	..	1	2	..	..	..	..	..	2	Influenza
Convulsions .. ..	..	1	..	..	..	1	..	1	3	..	..	..	..	..	3	Convulsions
Meningitis .. ..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	1	Meningitis
Whooping Cough .. ..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	1	Whooping Cough
Hydrocephalus .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Hydrocephalus
Spinal Caries .. ..	..	..	..	..	..	..	..	1	1	1	..	..	..	1	2	Spinal Caries
Gastro Enteritis .. ..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	Gastro Enteritis
Totals .. ..	9	3	..	1	..	1	4	4	22	3	1	1	..	5	27	Totals





TABLE XIII.

DISTRICTS		Births		Deaths under One Year		Maternal Mortality	
		No.	Rate per 1,000 of Population	No.	Rate per 1,000 Births	No.	Rate per 1,000 Births
Brackley	Borough	31	14·2	2	64·5	—	0·00
Daventry	„	49	14·1	1	20·4	—	0·00
Higham Ferrers	„	39	12·4	6	153·8	—	0·00
Burton Latimer	Urban	41	11·6	—	0·0	—	0·00
Desborough	„	83	18·7	4	48·1	—	0·00
Finedon	„	59	14·3	2	33·8	—	0·00
Irthlingborough	„	79	16·0	3	37·9	—	0·00
Kettering	„	441	14·2	26	58·9	5	11·33
Oundle	„	21	8·2	—	0·0	—	0·00
Raunds	„	41	11·1	3	73·1	—	0·00
Rothwell	„	58	12·1	4	68·9	—	0·00
Rushden	„	174	12·8	10	57·4	—	0·00
Wellingborough	„	291	14·2	18	61·8	2	6·87
<b>Combined Urban Districts</b>		<b>1407</b>	<b>13·84</b>	<b>79</b>	<b>56·14</b>	<b>7</b>	<b>4·97</b>
Brackley	Rural	98	15·2	2	20·4	—	0·00
Brixworth	„	153	12·9	3	19·6	—	0·00
Crick	„	25	10·2	1	40·0	—	0·00
Daventry	„	226	16·4	12	53·0	3	13·27
Easton-on-the-Hill	„	29	19·4	—	0·0	—	0·00
Gretton	„	16	11·7	—	0·0	—	0·00
Hardingstone	„	113	15·0	4	35·3	—	0·00
Kettering	„	115	12·0	8	69·5	2	17·39
Middleton Cheney	„	34	14·4	2	58·8	1	29·41
Northampton	„	179	20·4	11	61·4	—	0·00
Oundle	„	99	15·2	5	50·5	2	20·20
Oxendon	„	67	17·2	2	29·8	—	0·00
Potterspury	„	69	14·3	3	43·4	—	0·00
Thrapston	„	159	15·5	12	75·4	1	6·28
Towcester	„	144	14·5	8	55·5	—	0·00
Wellingborough	„	175	13·7	7	40·0	—	0·00
<b>Combined Rural Districts</b>		<b>1701</b>	<b>15·00</b>	<b>80</b>	<b>47·03</b>	<b>9</b>	<b>5·29</b>
<b>Administrative County</b>		<b>3108</b>	<b>14·45</b>	<b>159</b>	<b>51·15</b>	<b>16</b>	<b>5·14</b>

service. The procedure is the same as in the case of Puerperal Pyrexia or Puerperal Fever, given later in the Report.

#### TREATMENT OF ORTHOPÆDIC DEFECTS (OTHER THAN TUBERCULOUS).

For the financial year 1927-28, the Public Health Committee were allowed the sum of £500 for the institutional treatment of children under five years of age suffering from these defects, and although this represented an increase of £225 on the previous year, it was not nearly sufficient to deal with the whole of the cases. During the year, 9 children in respect of whom the Public Health Committee had accepted liability for institutional treatment were admitted to the Manfield Hospital; of these, 3 were discharged quite well, 3 are making satisfactory progress—wearing apparatus and having after-care treatment—and 3 were still under hospital treatment at the end of the year. Of 3 cases previously admitted and discharged during the year, 2 are quite well, and 1 left the County much improved and wearing apparatus. One case, admitted in June, 1926, is still in hospital; this was a case of very extensive paralysis of some considerable duration, which has improved from a state of total helplessness to capability for walking exercises.

A new clinic was opened in connection with the Manfield Hospital at Daventry during the year, making 5 in different parts of the County. These are situated as follows :—Northampton, Wellingborough, Peterborough, Brackley and Daventry.

**Maternal Mortality.**—The number of deaths in the Administrative County during the year 1927 from this cause was sixteen—seven in the Urban Districts and nine in the Rural Districts, representing a mortality rate per 1,000 births of 5.14.

The causes of death during Childbirth are divided into two sections; (1) Puerperal Sepsis, (2) Other Accidents and Diseases of pregnancy and parturition, and each section con-

tributed eight deaths. The Combined Urban Districts had three deaths from the former and the Combined Rural Districts five deaths, and from the latter cause each had four deaths.

The Maternal death rate for the County for the year 1926 was 4.71 per 1,000 births, and for the 16 years 1911-26 the average rate was 4.18.

During the year 1927, deaths from other accidents and diseases of pregnancy and parturition occurred as follows :—

1. Post partum haemorrhage ; shock ; obstructed labour due to fibroid uterus.
2. Pulmonary Embolism.
3. Post partum haemorrhage ; heart failure.
4. Eclampsia.
5. Shock and heart failure after Caesarian operation.
6. Post partum haemorrhage.
7. Pulmonary Embolism.
8. Eclampsia.

In addition to the deaths of cases of Puerperal Fever notified during the year 1927, there were four other deaths from this cause viz. : One case notified in 1926, two notified only as Puerperal Pyrexia, and one incomplete abortion (un-notified).

PUERPERAL FEVER.—Fourteen cases of Puerperal Fever were notified ; in Rural areas 3, and in Urban areas 11. Two were first notified as Puerperal Pyrexia, and this subsequently cancelled in favour of Puerperal Fever.

Details with regard to the notified cases are as follows :—



District.	Present at Birth.	Remarks.	Result
1. Daventry Rural	Doctor and Midwife	Membranes possibly incom- plete, torn perinæum, subinvolution, quantity of foul smelling slough removed from uterus on fourth day	Recovered
2. Kettering Urban	Doctor ..	Pyorrhœa. Neighbour at- tended at birth; no messenger to send for doctor. Three persons living in one room	Recovered
3. „	„ ..	Developed synovitis of the shoulder	Recovered
4. Wellingborough Urban ..	„ ..	Twin labour. Patient suf- fered from Venereal dis- ease	Died
5. Kettering Urban	„ ..	Contracted pelvis. Induc- tion	Recovered
6. Rushden Urban	„ ..	Severe post partum hæ- morrhage	Recovered
7. Thrapston Rural	Doctor and Midwife	Instrumental labour with torn perinæum	Died
8. Wellingborough Urban ..	B.B.A. of Doctor..	Miscarriage, which took place in a railway train and was not seen by a doctor for four days, when patient was sent to hospital and curetted	Recovered
9. Burton Latimer Urban ..	Doctor and Midwife	Gonorrhœa	Recovered
10. Finedon Urban	„ ..	Instrumental labour (primi- para). Subinvolution, slightly offensive pale lochia	Recovered
11. Oxendon Rural	Doctor ..	Instrumental labour with torn perinæum. Tonsilli- tis. Both doctor and nurse were infected from the patient with acute tonsillitis. Patient's ton- sils were subsequently re- moved in hospital	Recovered
12. Kettering Urban	Doctor and Midwife	Instrumental labour and torn perinæum Patient had old mastoid trouble with discharge	Died
13. Burton Latimer Urban ..	„ ..	Pyelitis under treatment before labour	Recovered
14. Rothwell Urban	B.B.A. of doctor	Twin labour. Born before arrival of doctor. No nurse Dirty house. One child had impetigo. Subinvolution and pelvic inflammation	Died



In some cases, one may say that a definite cause was found, as when patients were known to be suffering from gonorrhoea, pyelitis, or acute tonsillitis ; in other cases the notes were suggestive of possible infection, as when the patient had suffered from middle ear disease or been in contact with middle ear disease or Scarlet Fever ; while in some cases no predisposing causes could be discovered.

Ten of the 14 cases were treated in hospital, and special nurses were provided in 2 cases.

**PUERPERAL PYREXIA**—The number of cases of Puerperal Pyrexia notified during the year 1927 was 27 ; in Rural areas 15, and in Urban areas, 12. Investigation revealed the following ;—

1. Bronchitis in a patient subject to such attacks.
2. Two children developed Influenza on the 5th day of puerperium, and patient's temperature rose on 6th day.
3. Eclampsia.
4. Gastritis and pyorrhoea. Nurse attending a burn case, which developed erysipelas (disinfection carried out between). Dr. diagnosed Influenza.
5. No abnormality.
6. Mastitis.
7. Scarlet Fever removed from bed the day before confinement ; infant weighed 12 lbs. ; bruising and tearing of vagina and perinaeum ; slight albuminuria during pregnancy.
8. Phlebitis. Double Mastitis.
9. Hyperemesis gravidarum ; twin pregnancy ; torn perinaeum ; retained clot passed 12th day.
10. Transverse presentation.

11. Torn perinaeum ; subinvolution.
12. Bacillus coli communis in urine and albuminuria.
13. Uterine tenderness ; lochia ceased early and was re-established on the 8th day, after which temperature fell.
14. Albuminuria and purulent vaginal discharge.
15. Pus per rectum.
16. Mastitis.
17. No useful information.
18. Torn perinaeum ; post-partum haemorrhage ; lochia very scanty. Attendant had pyorrhoea. Midwife dressing a rectal sinus and disinfecting.
19. Adherent placenta removed manually. Baby spina bifida and " sticky eyes " 3rd day.
20. Phlegmasia Dolens ; Pneumonia. Died.
21. Pneumonia. Husband removed to hospital for mastoid operation on 5th day of puerperium.
22. Instrumental labour. No other useful information.
23. Rigid Os.
24. Retained membrane.
25. Premature labour. Born before arrival of attendant. Illegitimate. Mother worked up to time of birth.
26. Severe ante-partum haemorrhage. Caesarian section.
27. No abnormality.

Seven of these cases were treated in hospital, and special nurses were provided in three cases.

In addition to the arrangements previously made with regard to Puerperal Fever and Puerperal Pyrexia (as set out in the Annual Report for the year 1926) the following arrangements have been made :—

- (1) To admit such cases to certain hospitals, *viz.*, Northampton General Hospital, Stamford, Rutland and General Infirmary, and Hospital of St. Cross, Rugby ;
- (2) To provide nursing for Puerperal Pyrexia, as was previously done for Puerperal Fever.

Practitioners may apply either to the Public Health Offices, or, in the event of these being closed, to the Superintendent of the Northamptonshire Nursing Association regarding a Nurse, or to hospital for admission of the patient, subsequently notifying the County Medical Officer of Health of their action.

In July, 1927, all medical practitioners practising in the County were circularised on these matters.

The County Council made arrangements in November, 1925, for the provision, free of charge, to medical practitioners requiring it, of anti-streptococcal serum for the treatment of Puerperal Fever occurring *among necessitous women in the Administrative County*.

Where, in the cases referred to, a medical practitioner desires to have a bacteriological examination of the blood, or lochia, this will also be done free of charge. Applications for serum may be made to either the Northampton General Hospital or the Kettering and District General Hospital, whichever is the more convenient. Bacteriological examinations will be carried out only at the Northampton General Hospital.

No application for provision of serum, nor for a bacteriological examination, was received during the year.

## HEALTH VISITING.

The staff consists of eleven whole-time Health Visitors (two temporary) and one Superintendent; in addition to these, one Assistant Superintendent of the Northamptonshire Nursing Association and thirty district nurses act as part-time health visitors in the areas of Brackley, Market Harborough and Towcester.

Attached is a summarised statement of the Health Visitors' work during the year 1927 :—

WINTER SCHOOL FOR HEALTH VISITORS.—One Health Visitor, and one District Nurse acting as health visitor in her area, were sent by the Committee to the Winter School for Health Visitors, arranged by the Women's Sanitary Inspectors' and Health Visitors' Association, which was held in London from 27th December, 1927 to 7th January, 1928.

BOARDED OUT CHILDREN. Visiting for the Potterspury Board of Guardians is done by the Northamptonshire Nursing Association, and for the Daventry Guardians by the County Council Health Visitor.

FEEDING OF INFANTS. The percentage of infants wholly or chiefly breast fed and wholly artificially fed is as follows :—

	Breast fed.	Artificially fed.
Health Visitors' areas	84.49 per cent.	15.51 per cent.
Nurse-Midwives' areas	85.48   ,,   ,,	14.52   ,,   ,,

## MATERNITY AND CHILD WELFARE CENTRES.

The following Tables show the attendances at the various Centres in the County.



# SUMMARISED STATEMENT OF THE HEALTH VISITORS WORK DURING THE YEAR 1927.

DISTRICTS			Ante-Natal		INFANTS				Stillbirth Enquiries	Enquiries re Infant Deaths	Visits to Infant Welfare Centres	No. of Lectures given	Special Visits re Free Milk or Medical Fees	Mentally Defectives	Tuberculosis		Social Visits	Boarded Out + Children	TOTALS
					Under 1 Year		1—5 Years								First Visits	Subsequent Visits			
			First Visits	Subsequent Visits	First Visits	Subsequent Visits	First Visits	Subsequent Visits											
WHOLE TIME HEALTH VISITORS. Districts :—																			
No.	1.	Oundle ..	1	—	148	1292	37	1728	9	4	*	—	12	11	15	60	13	—	3330
	2.	Kettering ..	1	—	142	1517	1	1297	6	3	22	2	133	26	13	181	2	—	3346
	3.	Thrapston ..	67	31	207	1562	36	1746	6	15	2	—	5	25	22	252	24	—	4000
	4.	Rushden ..	—	—	205	2108	3	1353	7	14	*	—	44	38	37	424	4	—	4237
	5.	Wellingborough ..	2	3	254	1339	15	989	8	15	89	16	7	56	—	4	27	—	2824
	6.	Rothwell ..	—	—	157	1673	1	686	9	3	37	2	5	20	16	117	2	—	2728
	8.	Brixworth ..	2	1	178	1141	—	1650	3	4	20	—	4	13	23	230	—	—	3269
	9.	Abington ..	1	2	204	1650	22	1111	4	8	1	—	11	4	20	97	116	—	3251
	10.	Northampton ..	3	3	184	1752	18	1869	2	8	7	—	35	50	9	265	33	—	4238
	11.	Daventry ..	2	—	195	1584	1	683	8	6	40	—	18	28	11	115	26	67	2784
	14.	Finedon ..	2	—	215	2174	—	988	1	11	12	—	9	16	17	197	6	—	3648
Totals ..			81	40	2089	17792	134	14100	63	91	230	20	283	287	183	1942	253	67	37655
DISTRICT NURSE HEALTH VISITORS. Districts :—																			
No.	7.	Mkt. Harboro'	49	159	125	1123	55	1139	3	5	—	—	3	21	9	63	—	—	2754
	12.	Towcester ..	77	276	152	1186	22	2224	3	6	3	—	16	47	10	69	3	46	4140
	13.	Brackley ..	143	506	199	1505	26	2000	4	11	8	—	9	27	5	115	—	—	4558
Totals ..			269	941	476	3814	103	5363	10	22	11	—	28	95	24	247	3	46	11452

\* No Centre.

† This column refers to children visited under Part 1 of the Children Act, 1908.



### INFANT WELFARE CENTRES.

Name of Centre.	Average No. of Infants attending per session.	Average No. of Consultations per Doctor's attendance.	Attendances by Doctor.	Sessions.
Burton Latimer ..	39	6	16	20
Byfield (a) ..	13	8	8	9
Cranford ..	12	10	9	11
Cold Ashby ..	12	2	9	19
Daventry ..	18	15	17	25
Desborough ..	10	10	16	22
Grendon ..	4	3	8	23
Harleston ..	13	4	6	9
Irchester ..	11	3	17	21
Long Buckby ..	13	2	7	16
Moulton (b) ..	40	15	2	5
Rothwell ..	18	10	9	16
Towcester ..	12	3	20	22
Wellingborough ..	15	18	20	45

(a) Opened 16th Feb., 1927.

(b) Opened 23rd Aug., 1927.

### ANTE-NATAL CENTRE.

Name of Centre.	Average No. of exp't mothers attending per session.	Average No. of Consultations per Doctor's attendance.	Attendances by Doctor.	Sessions.
Wellingborough ..	8	8	9	10

### ULTRA VIOLET RAY TREATMENT.

Name of Centre.	Average No. of Infants attending per session.	Attendances by Doctor.	Sessions.
Wellingborough ..	6	24	82

### MIDWIVES AND MATERNITY HOMES ACT, 1926.

In January, 1927, the Midwives and Maternity Homes Act, 1926, came into force, making it an offence punishable by a fine not exceeding £50 for any person to carry on a Maternity

Home unless that person is registered in respect of such home. Bye-laws for the management of such homes were made and confirmed by the Ministry of Health, and four homes were registered :—

- “ Enville,” The Drive, Wellingborough.
- “ St. Helier’s, High Street, Wellingborough.
- (a) “ Wilmabern,” 8, Carnegie Street, Rushden.
- (b) “ Red Lodge,” Polebrook.
- (a) not now admitting cases.
- (b) since closed.

Various persons in different parts of the County, who were known to be about to take in a case or to have taken in a case, were visited, and warned of the above Act, and all Nurses were circularised.

#### MATERNITY BEDS IN INSTITUTIONS.

A sum of £300 was allowed in the estimates for the year 1927-28 for the institutional treatment of maternity cases. The actual expenditure for the financial year was £271, towards which contributions from patients amounted to £36.

The Kettering Maternity Ward was opened in April, 1927, and has proved of great service to the Districts in that part of the County. The other institutions available are the Queen Victoria Nursing Institution Maternity Home, Northampton, the Stamford, Rutland and General Infirmary, the Warwickshire County Maternity Home, and the Hospital of St. Cross, Rugby (for complicated maternity cases).

Maternity Homes and Hospitals are intended for those mothers who have either insufficient accommodation at home, or are suffering from some abnormal condition, such as contracted pelvis, eclampsia, ante-partum haemorrhage, etc.. Patients are admitted only on the certificate of the County Medical Officer of Health, and the husband or patient is required to contribute towards the cost of maintenance, an amount decided upon by a special sub-committee after



enquiries into the financial circumstances of the family. The cases admitted during the year 1927 were as follows :—

Queen Victoria Nursing Institution	
Maternity Home, Northampton ..	4
Kettering and District General Hos-	
pital Maternity Ward .....	5
Warwickshire County Maternity Home	1
Stamford, Rutland and General	
Infirmery .....	1
Hospital of St. Cross, Rugby	
(for complicated cases) .....	1

#### INSPECTION OF MIDWIVES.

The following inspections were made during the year by the Assistant Medical Officer of Health :—

Routine inspections .....	469
Special investigations .....	68
Inspections of Maternity Homes ....	15
Visits to uncertified persons.....	3
	<hr/>
	555
	<hr/>

Of the total births registered in the County (3108) 51.25 per cent. (1613) were attended by midwives, as against 47.39 per cent. in 1926, 49.74 per cent. in 1925, 50.7 per cent. in 1924, and 54.7 per cent. in 1923.

The position as regards midwifery service was as follows :—

Notified intention to practise .....	167
(Trained 159—7 being County Council Scholars—others 8.)	
In practice at end of 1927 .....	118
Left the County .....	19
Temporary .....	15
Ceased to practise .....	9
Acted in emergency .....	6

## FEEDING OF INFANTS.

Of 1613 live infants, 19 died before feeding ; the remaining 1594 were :—Breast fed, 96.5 per cent., partly breast and partly artificially fed, 0.9 per cent., artificially fed 2.6 per cent.

The reasons for artificial feeding in the 20 notifications received were given by the midwives as follows :—

Insufficient or no breast milk	8
Illness of mother	4
Doctor's advice	3
Mother going to work	3
Deformed nipples	1
Infant not thriving	1
	—
	20
	—

Medical aid was summoned as follows :—

## MOTHERS.

## PREGNANCY—

Abortion or miscarriage	..	..	..	21
Threatened Eclampsia	..	..	..	11
Ante-partum haemorrhage	..	..	..	8
Excessive vomiting	..	..	..	2
Varicose veins	..	..	..	1
Vaginal discharge	..	..	..	1
				— 44

## LABOUR—

Torn perinaeum	..	..	..	..	84
Prolonged labour	..	..	..	..	70
Adherent or retained placenta	..	..	..	..	30
Abnormal presentation	..	..	..	..	14
Post-partum haemorrhage	..	..	..	..	9
Stillbirth	..	..	..	..	3
Hysteria	..	..	..	..	1
					— 211

## LYING-IN—

Rise of temperature	..	..	..	..	23
Phlebitis in leg	..	..	..	..	7
Illness of mother (no rise in temperature)	..				4
Abscess of breast	..	..	..	..	2
Abdominal pain	..	..	..	..	1
Pain in right side	..	..	..	..	1
Vaginal swelling	..	..	..	..	1
Paralysis of arm (chorea)	..	..	..	..	1
Prolapse	..	..	..	..	1
Varicose veins	..	..	..	..	1
Growth in Vagina	..	..	..	..	1
					— 43

## INFANTS—

Inflamed or discharging eye	..	..	..	..	35
Feeble and/or premature infant	..	..	..	..	15
Deformities	..	..	..	..	5
Melaena	..	..	..	..	4
Convulsions	..	..	..	..	3
Illness of baby	..	..	..	..	2
Death of baby	..	..	..	..	2
Asphyxia	..	..	..	..	2
Septic spots	..	..	..	..	1
Jaundice	..	..	..	..	1
Rash on legs	..	..	..	..	1
Swelling of baby's head	..	..	..	..	1
					— 72

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370

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{Three notices referred to both Mother and Infant).

## MEDICAL PRACTITIONERS' FEES.

During the financial year 1927-28, 377 notifications of midwives sending for medical aid were received, and 143 claims for payment of fees were made by medical practitioners so called in, as against 375 notifications and 115 claims in the preceding year. After considering the circumstances of the families in each of these cases, the Standing Sub-Committee of the Public Health, etc. Committee, instructed steps to be taken to recover from the patient or person responsible the whole of the fee in 38 cases, and such part of the fee as seemed reasonable in view of the family's income in 48 cases. In 57 cases, it was decided to make no claim against the family. 10 of these were cases suffering from ophthalmia neonatorum in respect of the treatment of which the Committee, on the suggestion of the Ministry of Health, decided to make no claim. The cost of these cases was £11 17s. 9d. During the financial year 1926-27, the Sub-Committee instructed steps to be taken to recover the whole fee in 51 cases, such part as seemed reasonable in 44 cases, and in 20 cases decided to make no claim against the family.

The total payments to practitioners during the period amounted to £190 5s. 6d. as against £176 8s. 3d. in the preceding year. The amount included in the estimates for the past year was £200. £66 7s. 9d. was recovered from patients, as against £81 18s. 3d. in the preceding year. The amount included in the estimates as such receipts for the year was £75.

## FREE MILK.

The Sub-Committee appointed to deal with this matter granted milk as follows :—



## URBAN DISTRICTS.

## RURAL DISTRICTS.

		lbs.			lbs.
		Pts. (dried)			Pts. (dried)
Brackley Borough ..	90	—	Brackley ..	229	—
Daventry „	92	—	Brixworth ..	1090	—
Higham F. „	—	—	Crick ..	—	—
Burton Latimer ..	945	12	Daventry ..	194	—
Desborough ..	964	—	Easton-on-the-Hill	—	—
Finedon ..	364	6	Gretton ..	—	—
Irthlingborough ..	96	—	Hardingstone ..	746	18
Oundle ..	—	—	Kettering ..	948	42
Raunds ..	133	12	Middleton Cheney	28	—
Rothwell ..	620	6	Northampton ..	825	2
Rushden ..	1102	24	Oundle ..	707	—
Wellingborough ..	722	—	Oxendon ..	28	—
			Potterspury ..	—	—
			Thrapston ..	897	12
			Towcester ..	840	—
			Wellingborough ..	1700	22
	—	—		—	—
	5128	60		8232	96
	—	—		—	—

## MENTAL DEFICIENCY ACT, 1913.

During the year, 20 cases of mental deficiency were examined in different parts of the County. The majority were children under five years of age, examined with a view to deciding whether they were or were not mentally deficient. Others were (1) cases reported by the Education Authority, (2) cases “neglected, abandoned or without visible means of support” and (3) cases of “pregnancy and in receipt of Poor Law Relief.” Some of these were certified under the Mental Deficiency Act and sent to suitable institutions, and one case was certified under the Lunacy Act.

125 cases were under supervision by the Health Visitors. 5 died during the year.

#### VENEREAL DISEASES.

TREATMENT.—The arrangements made with the Northampton General Hospital for the diagnosis and treatment of patients suffering from Venereal Diseases have been continued.

The parties to the arrangements are the Counties of Northampton and Buckingham and the County Borough of Northampton.

The days and hours of Consultation at “ The Out-patient Clinic ” are as follows :—

On Mondays, at 10.30 a.m. and 7.30 p.m. for Females.

On Wednesdays, at 3.0 p.m. for Males.

On Fridays, at 8.0 p.m. for Males.

The total number of new County cases attending for treatment at the Centre during the year was 101 as compared with 71 for 1926. The total attendances at the out-patient clinic were 1,537 as compared with 1,146 for 1926. The number of persons discharged after completion of treatment was 31 as compared with 108 for the year 1926. The number who ceased without completing treatment or before the final test as to cure was 69 as compared with 145 for 1926. The number of persons treated with Salvarsan Substitutes was 147 as compared with 106 for 1926.

It was found necessary to re-pay the travelling expenses of 13 persons from the County who attended the Venereal Diseases Clinics. In all, the sum expended during the financial year amounted to £24.

The following table supplies information as to new County cases and attendances, etc., during the three years 1925-1927.

	1925		1926		1927	
	Males	Fe- males	Males	Fe- males	Males	Fe- males
1. Number dealt with at or in connection with the Out-patient Clinic for the first time	53	25	48	23	68	33
2. Total attendances of all persons at the Out-patient Clinic	1002	356	758	388	1093	444
3. Number discharged after completion of treatment .. ..	9	2	60	48	22	9
4. Number who ceased to attend without completing treatment .. ..	8	—	88	57	51	18
5. Number of persons treated with Salvarsan substitutes ..	74	43	60	46	91	56

By the end of the year the following pathological examinations had been made at the Pathological Laboratory of the Hospital, and numbered 428, as against 376 in the year 1926.

Nature of Tests.	No. of Tests.
For Detection of Spirochetes	For Treatment Centre .. 1
	For Practitioners .. 1
For Detection of Gonococci	For Treatment Centre .. 144
	For Practitioners .. 57
For Wasserman reaction	For Treatment Centre .. 95
	For Practitioners .. 130
Other Examinations	For Treatment Centre .. 0
	For Practitioners .. 0
	<hr/>
	Total .. 428

There were 11 medical practitioners in the County, inclusive of the two Medical Officers of the Treatment Centre, scheduled as being qualified to receive free samples of salvarsan substitutes during the year 1927—the same number as in the years 1925 and 1926—and supplies were sent to them at their request in respect of four cases.

PROPAGANDA.—No propaganda was carried out during the year 1927. It will be remembered, however, that there was an extensive campaign in this connection in several districts of the County during the year 1926.

### HOUSING.

In the year 1926 the number of houses erected by private enterprise was in excess of those built under Housing Schemes of Local Authorities, being 446 as against 319. In the year 1927 the position was reversed, the houses erected under Housing Schemes by Local Authorities amounting to 560, while those erected by private enterprise numbered 489. Crick, Easton-on-the-Hill and Gretton were the only Districts in which no houses were erected under local schemes or otherwise during the year. The Districts with the largest number of completed houses during the year were Northampton Rural, Kettering Urban, Kettering Rural, Rushden and Wellingborough Urban, Wellingborough and Daventry Rural.

Table XV. shows for each District of the County the extent to which provision of housing accommodation was made or was in contemplation at the end of the year 1927.

The number of houses in the Rural Districts which were notified under Section 25 of the Housing Act, 1925, amounted to 26, as against 5, 25, 10 and 23 in the years 1926, 1925, 1924 and 1923 respectively.

Table XVI. shows the Representations, Closing Orders, etc. made in the several Rural Districts of the County.



TABLE XV.

## TABLE SHEWING DISTRICT RETURNS OF HOUSING PROGRESS FOR THE YEAR 1927.

DISTRICTS				By Local Authority under Housing Scheme			By Private Enterprise					
				Houses completed during 1927	Houses in course of erection but not completed at end of 1927	Prospective Houses	Houses completed during 1927		Houses in course of erection but not completed at end of 1927		Prospective Houses	
							Subsidy	Non-Subsidy	Subsidy	Non-Subsidy		
<b>URBAN.</b>												
Brackley Borough	..	..	..	—	—	—	2	—	1	—	—	—
Daventry Borough	..	..	..	8	—	10	2	1	—	—	—	—
Higham Ferrers Borough	..	..	..	28	—	—	4	—	—	—	—	—
Burton Latimer	..	..	..	20	—	20	5	1	2	—	—	—
Desborough	..	..	..	—	—	16	11	—	1	2	—	6
Finedon	..	..	..	50	—	—	—	1	—	—	—	—
Irthlingborough	..	..	..	—	—	—	9	1	—	—	—	—
Kettering	..	..	..	62	28	96	44	16	8	4	—	22
Oundle	..	..	..	—	—	—	—	2	—	1	—	—
Raunds	..	..	..	15	—	—	2	—	—	—	—	—
Rothwell	..	..	..	13	—	8	17	1	—	—	—	6
Rushden	..	..	..	68	119	52	23	9	27	9	—	2
Wellingborough	..	..	..	6	—	—	79	11	15	3	—	3
<b>RURAL.</b>												
Brackley	..	..	..	—	—	—	2	—	2	1	—	—
Brixworth	..	..	..	14	—	—	31	1	9	5	—	6
Crick	..	..	..	—	—	—	—	—	—	—	—	—
Daventry	..	..	..	52	—	4	18	9	—	—	—	—
Easton-on-the-Hill	..	..	..	—	—	—	—	—	—	—	—	—
Gretton	..	..	..	—	—	—	—	—	—	—	—	—
Hardingstone	..	..	..	—	—	—	5	5	—	2	—	—
Kettering	..	..	..	76	—	—	21	10	2	4	—	4
Middleton Cheney	..	..	..	—	—	—	2	—	2	—	—	—
Northampton	..	..	..	64	—	8	71	34	4	11	—	22
Oundle	..	..	..	4	—	—	1	2	—	—	—	—
Oxendon	..	..	..	8	—	8	1	—	—	—	—	—
Potterspury	..	..	..	2	—	—	1	—	—	—	—	4
Thrapston	..	..	..	—	6	—	12	5*	4	—	—	—
Towcester	..	..	..	—	—	—	1	5	—	1	—	2
Wellingborough	..	..	..	70	14	8	8	3	7	1	—	1
Totals ..				560	167	230	372	117	84	44	—	78

\* Includes 2 Bungalows.



# HOUSING ACT, 1925.

TABLE XVI.

## Houses in Rural Districts Notified under Section 25, during the year 1927.

DISTRICTS	No. of Houses	Date of			Action taken and condition up till end of 1927
		Representa- tion	Closing Order	Demolition Order	
Brackley ..	Nil				
Brixworth :					
Old ..	1		13th June		
Naseby ..	1		26th November		
Boughton ..	1		2nd December		
Crick ..	Nil				
Daventry ..	Nil				
Easton-on-the-Hill	Nil				
Gretton ..	Nil				
Hardingstone ..	Nil				
Kettering ..	Nil				
Middleton Cheney :					
Upper Boddington	1		25th January		Voluntarily closed ; re-conditioned as a small cottage
Lower Boddington	1		25th January		Roof renewed
Northampton ..	Nil				
Oundle :					
Polebrook ..	3	13th October	13th October		1 Order determined
" ..	2	10th November	10th November		
Nassington ..	2			3rd February	Houses pulled down
Oxendon :					
Braybrooke ..	1	March	August		
Stoke Albany ..	1	March			Demolished
Welford ..	5	March			Out-Buildings partly demolished
Wilbarston ..	1	March			Roof covered with corrugated sheets
Potterspury :					
Ashton ..	4	4th August			
Thrapston ..	Nil				
Towcester :					
Cold Higham	2	16th May	31st May		Voluntarily demol- ished
Wellingborough ..	Nil				
Total	26				





### FACTORIES, WORKSHOPS, ETC.

Table XIX. at end of Report gives particulars of Inspections, etc.

### WATER SUPPLY.

WELLINGBOROUGH URBAN.—A Ministry of Health Inquiry was held in May, in respect of an application to borrow £7,000 for purposes of water supply. The application was sanctioned, and the scheme is proceeding satisfactorily.

The following information has been taken from the Annual Reports of District Medical Officers of Health which have, so far, been received :—

BRACKLEY BOROUGH.—The supply had been in a very precarious state for some time past owing to the danger of pumping apparatus failing, there being nothing to fall back on: this has now been remedied. There is an unusually good head of water in the well.

RAUNDS URBAN.—The question of augmenting the supply during dry seasons is still receiving consideration by the Council.

CRICK RURAL.—Of two samples of water submitted for analysis, one was reported unfit for drinking purposes.

HARDINGSTONE RURAL.—A Ministry of Health Engineer visited the parishes of Hardingstone, Brafield and Denton, and samples of water sent for bacteriological examination were reported to be excellent.

KETTERING RURAL.—The supply at Corby is stated to have been satisfactory, and 40 connections made during the year. A new  $\frac{3}{4}$  in. supply has been made to the New Housing site at Broughton.

NORTHAMPTON RURAL.—At the request of an Inspector of the Ministry of Health samples of water were taken from the public supplies at Nether Heyford and Kislingbury.

These, together with a sample from a public well at Great Billing, were analysed and declared to be very satisfactory.

POTTERSPURY RURAL.—The parishes of Yardley Gobion, Paulerspury, Alderton, a part of Hartwell, Grafton Regis, and Cosgrove are dependent on a number of shallow wells, many of which are very badly situated and in constant danger of contamination. In times of drought a large number of these wells run dry and cause the greatest inconvenience to the inhabitants, who are compelled to fetch water from a long distance.

A system of public water supply was installed last year at Old Stratford and is working satisfactorily.

The supply at Yardley Gobion was the subject of a special report to the Council last June. Samples were taken from seven representative wells and in each case the water was found to be unfit for drinking purposes.

After some discussion of this report, the Council decided to postpone action on account of the expense that would be entailed by the installation of a Public Supply System, and to have these wells tested at a later date.

Five of these wells were tested in January, 1928, and of these, three were passed as safe for drinking purposes: these three included the Public Well on the Green. Although this shows that the wells are subject to occasional contamination, probably from surface drainage, it does not, unfortunately, prove that they can be considered safe for drinking purposes. The matter is still under consideration by the Council.

THRAPSTON RURAL.—The scheme of water supply for the parish of Thrapston is still in a state of suspension. Chemical analysis of a sample of the proposed supply showed no evidence of pollution, but bacteriological examinations revealed the presence of some excremental organisms thought to be probably incidental to the construction of the well. Bacteriological examinations of further samples were made, and excremental organisms were absent from one, which was

declared fit for drinking ; but in a later sample *B. Coli* could be found in 10 c.c. of water. The latter sample was taken at a time of heavy rains, and the contamination was believed to be due to surface water which could easily enter the well as it had not yet any surround. The additional Scheme for Woodford is still under consideration. Eleven samples from various sources in the District showed pollution in seven cases.

TOWCESTER RURAL.—A public Inquiry was held at Cold Higham. The Ministry of Health sanctioned a loan of £500 which made provision for an extension of Water Supply from the Cold Higham supply to Grimscote by the installation of a new ram and mains, and stand pipes in the village thus doing away with two dip wells.

#### RIVERS POLLUTION.

Inspections of Rivers and Streams were made during the year in the Hardingstone, Northampton, Wellingborough and Brixworth Districts, the places visited being Harpole, Nether Heyford, Bugbrooke, Kislingbury, Great Billing, the Northampton County Borough Sewage Farm between Billing and Earls Barton, and Stimpson's Leather Factory near Abington Mill, Great Houghton, Hardingstone, Bates' Gut Works and Parker Gray's Rush Mills. Fellmongering premises at Hardingstone, Milton, Rothersthorpe, Roade, Courteenhall, Quinton and Wootton, Wellingborough Urban District (the river from the London Road Bridge to the L.N.W. Bridge, Sewage Works, Gas Works) and Irchester, Little Irchester, Wollaston, Grendon Bozeat.

The following are brief reports of certain of my inspections :—

NORTHAMPTON COUNTY BOROUGH SEWAGE FARM. (Great Billing).—The farm is well managed, but some of the land appears to be too heavy for the treatment of sewage ; the effluents will be watched, and samples taken from time to time.

HARDINGSTONE RURAL DISTRICT. (River Nene, near Parker Gray's Rush Mills).—A sample of effluent taken as



it entered the river was on analysis found unsatisfactory. The attention of the owner of the Mills was called to the result of the analysis.

(HARDINGSTONE.)—Effluent from Sewage farm is discharged into stagnant dyke, and the brook into which the dyke discharges is covered with vegetation and the bed silted up. The condition of the dyke and brook was brought to the notice of the District Council.

(ROADE.)—The Sewage is led into sedimentation tanks. The effluent, after passing into filter beds, goes into a brook which ultimately enters the Tove, 3-4 miles away. On analysis of the effluent, it was found unfit to enter the river, and was probably due to the fact that the sewage was filtered too rapidly.

The District Council are considering what can be done to improve the effluent.

(WOOTTON.)—The Sewage is led into sedimentation tanks and thence into Wootton Brook. There is no other treatment of the sewage, and the effluent analysis showed a high figure for ammonias.

The District Council have the matter under consideration.

NORTHAMPTON RURAL DISTRICT. (Kislingbury).—A quantity of household refuse was on the banks of the river at the time of my inspection, with the probability of it falling into the river; this was found to have been put there on the morning of my visit by a tenant of a condemned cottage who was quitting his premises that day. The District Council's Sanitary Inspector had the refuse removed at once.

WELLINGBOROUGH URBAN DISTRICT.—There appeared to be no pollution of the River between London Road bridge and the L. & N.W. Railway bridge.

The sewage farm seemed to be managed in a most efficient manner.



WELLINGBOROUGH RURAL DISTRICT. (Irchester.)—The Sewage, after passing through screening and sedimentation tanks, is led by pipes on to the Sewage Farm. I suggested that the whole of the land be dug up and smaller grips substituted for the large ones which at present exist.

The District Council propose duplicating the present sludge bed and executing other works.

(Bozeat).—A system has been installed whereby the sewage is led into a sedimentation tank and thence into a filter bed. On my visit of inspection, however, I found that the sewage had been diverted so that it passed direct into the stream instead of over the filter beds. I visited the Chairman of the Parish Council and pointed out to him the necessity for better supervision of the Sewage Works.

The brook into which the effluent enters was filthy.

The filter beds are now stated to be working satisfactorily and better supervision is being given to them.

A sewage scheme for the parish is still under the consideration of the District Council.

(Wollaston).—Half of the sewage is led into a sedimentation tank, and then passed on to the land. In storm time, however, part of the sewage is allowed to go direct into the brook. About  $2\frac{1}{2}$  acres of land is under sewage, which is too small. A sample of the effluent, as it passed into the brook, was taken and found to be very bad. Steps should be taken immediately to remedy the pollution. I understand that a new scheme is under consideration, but, in the meantime, I suggest that the whole of the farm be dug up. as at present the grips are so long and deep that the sewage merely passes down them and cannot filter through the land.

A sample of the effluent was taken for analysis, and the report stated

“ This is a very bad effluent and it should be better  
 “ purified before being put into the brook. It is prob-  
 “ ably being passed through the filters too rapidly.”

A Ministry of Health Inquiry was held in November on the application of the Rural District Council for sanction to a loan of £6,100 for works of sewerage and sewage disposal, and the Council are now awaiting the approval of the Ministry to the new Scheme. In the meantime, the land at the Sewage Farm is being dug up whenever the weather permits.

BRIXWORTH RURAL DISTRICT. (Brixworth.)—A complaint was made towards the end of the year of the pollution of Spratton Brook by Sewage from the Brixworth Sewage Works. On my inspection, I noticed that a special grip had been made to take the sewage direct into a fresh water brook (which divided the farm) and the sides of the grip and brook were lined with old sewage, as was also the ditch at the bottom of the sewage farm. The East meadow above the railway was flooded and contained a large amount of sewage matter. The West meadow below the railway was also badly flooded. The ditch running along the East side of the railway was practically stagnant and almost filled with sewage matter. It was quite obvious that owing to the sewage from the farm having been allowed to go into the fresh water brook, the railway ditch and the stone drain into which it leads, had become clogged with sewage, resulting in flooding and back flow of sewage on to the meadows.

I understand that the matter is now under the consideration of the District Council.

#### SEWERAGE AND SEWAGE DISPOSAL.

Several of the Reports of the District Medical Officers of Health, so far to hand, make brief comments on this subject, and the following information has been gleaned therefrom :—

DESBOROUGH URBAN.—The question of extending the sewerage system was the subject of a special report by an Engineer, but as it was not deemed to be urgent and the fact that only a few houses were involved, it was decided to defer the matter for the present.

To remedy flooding of the Rushton Road and Union Street sewer and the accompanying dispersal of sewage on to land in the vicinity of dwellings which has happened during heavy falls of rain, it has been decided to carry out certain works including the laying of a nine inch storm drain.

The filtering media of the sprinkler beds at the sewage farm which had become choked were taken out, washed and re-graded and the beds made up to the required height with new material.

KETTERING URBAN.—Minor repairs to the distributing machines on the percolation beds were carried out. The old stoneware pipe syphon, used for emptying the two humus tanks, was found to be useless, and has been replaced by cast-iron pipes. This will enable the tanks to be emptied quickly, as often as required, and will improve the effluent taken into the brook.

BRACKLEY RURAL.—All the village drainage schemes are now working satisfactorily with the exception of Kings Sutton, the scheme for which has been held up on account of the difficulty experienced in obtaining a suitable site for the works. This has now been overcome and it is anticipated that the necessary plans will shortly be drawn up.

GRETTON RURAL.—Slight pollution of the river Welland is stated to have taken place by sewage from the villages of Rockingham, Gretton and Harringworth. This matter will receive attention.

HARDINGSTONE RURAL.—A portion of the sewer at Milton was taken up and re-constructed, and a re-construction of another portion is contemplated.

KETTERING RURAL.—The sewers have been extended to new housing sites at Broughton and Geddington. Septic tanks have been cleaned out at Harrington, Loddington, Rushton, Stanion, Thorpe Malsor, Warkton and Weekley, and brooks or ditches have received similar attention at Great Oakley, Harrington, Little Oakley and Middleton.



MIDDLETON CHENEY RURAL.—New outfall works have been provided in the parishes of Aston-le-Walls and Chacombe, and a scheme of sewage disposal for the parish of Middleton Cheney is now being considered by the District Council.

NORTHAMPTON RURAL.—An extension of the sewers along the road to New Duston is urged owing to the amount of building being carried out. A system of sewage disposal for this parish is also declared to be very necessary.

OXENDON RURAL.—A new sewer has been laid and a septic tank provided for the new Harborough Road houses at Braybrooke, a further tank will be added later. The sewage works at Welford are to be re-organised and a further length of sewer laid.

THRAPSTON RURAL.—A new sewage scheme is under consideration for the parish of Brigstock. The crude tanks have been cleaned out at Thrapston, and a length of new sewer laid at Little Addington.

TOWCESTER RURAL.—The new outfall works at Blisworth were completed during the year.

#### MILK AND DAIRIES (CONSOLIDATION) ACT, 1915.

Communications were received during the year from the London County Council in respect of milk from nine farms in this County. In each case it was stated that a sample of milk had been found on bacteriological examination to be tubercle-infected.

Veterinary Inspections were made of the farms, at most of which I was present. In all, 235 cows were examined, 18 of which were found to have indurated udders, 2 with sore teats, and one with two nodules. 73 samples of milk were taken for microscopical examination and 19 for animal inoculation. The results of the examinations showed that one sample of milk contained Tubercle Bacilli; and in one case the in-



oculated guinea pig died and was found to have a large caseating gland situated below the liver which was found on examination to be infected with Tubercle Bacilli. Both cows were slaughtered under the Tuberculosis Order of 1925. Other results showed that 9 samples of milk contained pus, 4 blood, 1 organisms, 2 streptococcus, 1 diplococci and 1 staphylococci. One guinea pig which was killed was found to have large mesenteric glands and large inguinal glands ; pyogenic infection. In the cases where pus, etc. were found, steps were taken by the farmers to remedy the causes to which the results were thought to be due. The samples in a large number of cases were taken by Mr. F. Caulton, the Chief Inspector of Food and Drugs.

Complaints were also received from the London County Council in respect of 13 samples of milk in which it was stated that the injected guinea pig had succumbed to an acute intercurrent infection, presumably caused by some organism other than tubercle contained in the milk. These were referred to the several farmers concerned, and were in many cases dealt with by the latter's own Veterinary Surgeons.

Two complaints were received from the Watford Borough Council as to samples of milk which were stated to be respectively loaded with bacteria, and loaded with bacteria and a large number of streptococci. These were satisfactorily dealt with, improvements to the drains and sheds being carried out by the farmers concerned.

#### MILK AND DAIRIES ORDER OF 1926.

In October, 1927, the County Council approved of a recommendation (similar to that approved in October, 1926, in respect of the Joint Committee under the Milk and Dairies Orders of the Kettering Urban and Rural District Councils and the Burton Latimer, Desborough and Rothwell Urban District Councils) appointing the Higham Ferrers Borough Council, the Finedon, Irthlingborough and Rushden Urban

District Councils and the Joint Committee of the Wellingborough Urban and Rural District Councils severally as their Agents in the Administration of Part IV. of the Milk and Dairies Order of 1926.

The above arrangements cover only a portion of the County, and the Public Health Committee are very sensible of the difficulty of differentiating between various parts of the County so far as the veterinary inspection of dairy cattle is concerned. Moreover, the Committee having expressed the view that all Local Sanitary Authorities should have arranged for such inspection under the old Orders and having made representations to this effect, feel that the powers which have now been transferred to, and become the duty of, the County Council should be exercised. Alternative methods of giving effect to this opinion were still under consideration of the Committee at the end of the year.

Extracts from the Reports of Veterinary Inspectors of the Authorities acting as Agents of the County Council in the Administration of Part IV. of the Order, are given below, together with a Table showing number of inspections, etc. (inclusive of those made in the Oundle Urban District—First Quarter only—and Raunds Urban District):—

HIGHAM FERRERS BOROUGH.—The cows in milk have been clinically normal and with very few exceptions in good condition.

FINEDON URBAN DISTRICT.—Throughout the year there has not been any abnormality necessitating a special report being made to you, and the general condition of the Cows has been satisfactory.

IRTHLINGBOROUGH URBAN DISTRICT.—The general condition of the Cows has been satisfactory, and there is an improvement in their cleanliness and surroundings.

10/1/26

KETTERING JOINT (DAIRIES) DISTRICT.—The number of defects relating to dairies and cowsheds were as follows :—

Neglect of cleanliness .....	19
Dirty condition of udders .....	11
Neglect of lime washing .....	22
Accumulations of manure .....	26
Dirty approach to sheds .....	12
Insufficient natural light .....	6
Inadequate artificial light.....	2
Bad floors .....	19
Improper drainage.....	3
Insufficient ventilation .....	5
Dirty milking .....	4
Dirty milking stools .....	43
Bad or inadequate water supply ....	5
No water receptacles .....	1
Unsatisfactory milk rooms .....	14
Failure to provide milkers' overalls ..	44
Absence of necessary cooling facilities	12

Fifteen cows, belonging to fourteen registered owners have been dealt with by immediate slaughter under the Tuberculosis Order during the year. Of this number, two animals were not in milk and in three other cases the disease was “not advanced.”

Of the nine cases under “scheduled diseases,” eight were due to retained after-birth and one to septic inflammation of the womb. In each case the affected cow was removed from the herd pending recovery.

Want of cleanliness (19 cases) and dirty udders (11 cases) were due to the neglect of some owners to wash and flush floors and gutters at least once a day.



A rather large number of cases of accumulated manure (26) and dirty approach to sheds (12) has been due to the abnormally wet seasons which for long periods have often rendered this work impossible.

Only in quite a small number of cases has it been necessary to give a second notice to rectify faults capable of early amendment.

RUSHDEN URBAN DISTRICT.—With one exception (a case of Benign Mastitis affecting one quarter) the whole of the Cows are clinically normal, and with few exceptions in good condition.

One dairyman has given up milk production.

WELLINGBOROUGH JOINT (DAIRIES) DISTRICT.—The cases of Tuberculosis were reported to the Local Authority and dealt with under the Tuberculosis Order of 1925.

The general condition of the cows throughout the year, with few exceptions, has continued to be most satisfactory.

There were seven cases of Neglect of limewashing, and in this connection the Inspector states

“ strict supervision has to be exercised over limewashing  
 “ and manure accumulations. In many instances, in-  
 “ sufficient attention is paid to the cows’ cleanliness.  
 “ On the whole, however, there is an improvement.”

The following extracts are taken from the Reports of the Veterinary Inspectors to the Oundle and Raunds Urban District Councils.

OUNDLE URBAN DISTRICT.—I have had one case of Tuberculosis of the Lungs in a heifer and the animal has been destroyed. With this exception, I find the animals sound and the milk fit for human consumption. The condition of the cowsheds is satisfactory.

RAUNDS URBAN DISTRICT.—I have found one case of Mastitis of a non-tubercular origin in a cow which has now been



dried off. With this exception, I find the udders all sound and the milk fit for human consumption.

The condition of the cowsheds is satisfactory.

With regard to OXENDON RURAL DISTRICT all the cows are reported to have been inspected by the District Council's Veterinary Inspector during the first quarter of the year.

Table showing inspections of cows, etc. under the Milk and Dairies Order of 1926.

District.	No. of Inspections, and re-inspections of premises.	Number of Inspections of cows.	Number of cows with abnormal udders (non-tubercular).	Number of cows with Tuberculosis (including Tuberculosis of the Udder).	Number of cows with "scheduled diseases" under the Milk & Dairies (Consolidation Act, 1915, or the Milk & Dairies Order of 1926.
Higham Ferrers					
Borough ..	35	327	—	—	—
Finedon Urban	46	465	—	—	—
Irthlingborough					
Urban ..	43	314	—	—	—
Kettering Joint	435	5138	3	15	9
Oundle Urban	23	315	—	1	—
Raunds Urban	56	460	1	—	—
Rushden Urban	79	774	1	—	—
Wellingborough					
Joint ..	292	3449	25	4	—

#### MILK (SPECIAL DESIGNATIONS)) ORDER, 1923.

Two samples were taken from a producer of Grade A Milk, for bacteriological examination, both of which agreed with the conditions laid down in the Order.

## SALE OF FOOD AND DRUGS ACTS.

ANNUAL REPORT OF COUNTY ANALYST FOR YEAR ENDING  
DECEMBER, 31ST 1927.

During the year 1927, 434 samples (426 being formal samples and 8 informal) were submitted for examination. They comprised the following :—

Milk	..	..	..	..	..	328
Separated or Skimmed Milk	..	..	..	..	..	9
Cream	..	..	..	..	..	1
Condensed Milk	..	..	..	..	..	1
Butter	..	..	..	..	..	17
Margarine	..	..	..	..	..	10
Lard	..	..	..	..	..	1
Pork Sausages	..	..	..	..	..	15
Beef Sausages	..	..	..	..	..	8
Pressed Beef	..	..	..	..	..	1
Pressed Pork	..	..	..	..	..	1
Pork Pie	..	..	..	..	..	9
Meat Pastes and Potted Meat	..	..	..	..	..	6
Fish Pastes	..	..	..	..	..	4
Coffee	..	..	..	..	..	1
Ground Almonds	..	..	..	..	..	1
Ground Rice	..	..	..	..	..	1
Strawberry Jam	..	..	..	..	..	2
Raspberry Jam	..	..	..	..	..	1
Tangerine Marmalade	..	..	..	..	..	1
Ginger Marmalade	..	..	..	..	..	1
Fruit Salad	..	..	..	..	..	1
Lemon Squash	..	..	..	..	..	1
Lemon Curd	..	..	..	..	..	1
Branston Pickle	..	..	..	..	..	1
Salad Cream	..	..	..	..	..	1

Mayonnaise	..	..	..	..	1
Vinegar	..	..	..	..	2
Self-raising Flour	..	..	..	..	2
Tea-cake Mixture	..	..	..	..	1
Borax	..	..	..	..	1
Whisky	..	..	..	..	3
					————
					434
					————

MILK.—Of the 337 samples sent (four being “ appeal to cow ” samples and nine separated or skimmed milk) 13 were unsatisfactory. This shows a decided improvement on last year when 36 out of 354 samples were reported against. All of the 13 were deficient in Fat to the extent of from 7 per cent. to 22 per cent.

The “ appeal to cow ” samples, taken in connection with four of the fat-deficient milks, showed, on analysis, percentages of 4.15, 2.65, 3.10 and 3.20 of fat, respectively.

The average percentage of fat for all the samples examined during the year—including those reported as being deficient in fat—was 3.5, being 0.5 per cent. above the minimum requirements of the Sale of Milk Regulations.

The average percentages of fat in all the samples from the Northern and Southern Divisions, respectively, of the County, during each quarter, were as follows :—

		Northern Division.			Southern Division.
		Fat, per cent.			Fat, per cent.
March Quarter	..	3.46	..		3.57
June	.. ..	3.40	..		3.35
September	.. ..	3.50	..		3.31
December	.. ..	3.67	..		3.86

CREAM.—The one sample of Cream was genuine and free from Boracic Preservatives. It contained 60.57 per cent. of Fat.

CONDENSED MILK.—An informal sample of machine skimmed sweetened, condensed Milk was sent for analysis, and was found to contain 25.9 per cent. of Milk Solids, the minimum requirements of the Condensed Milk Regulations being 26 per cent. The sample contained 0.38 per cent. of Fat, and over 43 per cent of added sugar.

BUTTER.—Of the 17 samples of Butter, one was found to contain 0.65 per cent. of excess water. Seven of the samples contained respectively, Boracic Preservatives equal to .15 per cent., .15 per cent., .17 per cent., .20 per cent., .22 per cent., .28 per cent. and .33 per cent. Boric Acid.

MARGARINE.—Ten samples of Margarine were submitted for examination during the year. Two of these contained excess water to the extent of 0.4 and 0.6 per cent. All the samples were free from Boracic preservatives.

LARD.—The one sample sent was genuine and sound.

SAUSAGES —Of the 23 samples of Pork and Beef Sausages, 5 contained the prohibited Boracic preservative in the following percentages of Boric Acid, .16, .18, .21, .42 and .6. The vendor of the sample of Pork Sausage containing .6 per cent. Boric Acid (which is equivalent to 42 grains per lb. of sausage) stated that the “bacon bits” used in making the sausages had been “dusted” with the Preservative.

Three samples contained Sulphite preservatives, but within the prescribed limits of the Regulations.

PORK PIES.—All the 9 samples were good and sound, and free from Boracic Preservatives.

PRESSED BEEF AND PRESSED PORK.—Both these samples were genuine and free from Preservatives.

POTTED MEAT, MEAT PASTES AND FISH PASTES.—The six samples of Potted Meat and Meat Paste were genuine and



free from Boracic Preservatives, as were also the four samples of Fish Paste.

The samples of GROUND ALMONDS, GROUND RICE, SELF-RAISING FLOUR AND TEA-CAKE MIXTURE were genuine, the flours being free from Alum and injurious ingredients.

A sample of BORAX sent for examination was found to be unsatisfactory, inasmuch as it contained Arsenic to the extent of 24 parts per million.

The two samples of VINEGAR were genuine.

PRESERVES.—All the samples of Preserves—including Jams, Marmalades, Pickles, Salad Creams, Fruit Salad, etc., were genuine and free from Salicylic and Boracic Preservatives.

SPIRITS.—Two of the three samples of WHISKY examined were genuine. The third sample contained 7 per cent. of excess water and was 39.60 degrees under proof strength.

Other samples sent call for no observations in particular.

#### MILK AND CREAM REGULATIONS—COUNTY OF NORTHAMPTON, 1927.

##### MILK AND CREAM NOT SOLD AS PRESERVED CREAM.

(a) Number of Samples examined for the presence of a Preservative		(b) Number in which Preservative was reported to be present, and percentage of Preservative found in each Sample
Milk	337	None
Cream	1	None

  

Cream sold as Preserved Cream	Percentage of Preservative found	Percentage of Preservative stated on label
None	—	—

REPORT ON THE WORK OF THE INSPECTORS OF  
FOOD AND DRUGS

FOR THE YEAR ENDING DECEMBER 31ST, 1927.

Of the 434 samples submitted for analysis during the year ended December 31st, 1927, twenty four were reported against and of this number thirteen were samples of new milk, which, on further investigations being made were believed not to have been adulterated. There were, however, warnings given to certain vendors for failing to keep the milk stirred when in course of distribution.

In other cases of fat deficiency informal tests were made and four "appeal to the cow" samples were taken. In each case the producers took steps to ensure milk of the required standard being delivered.

By partly milking the cows and allowing the calves to extract the strippings, one dairyman appeared to believe in fattening his calves rather than the children of his customers.

In most of the unsatisfactory samples of milk the poor quality has been attributed either to faulty milking or failing to mix the milk of the herd before sale. With regard to the latter, the trouble lies in the fact that the process of milking is not always completed before the children of the dairymen, who, in many instances, act as deliverers, leave for school.

It is satisfactory to note that during the year not one sample of milk was found to be adulterated with water.

A sample of WHISKY was obtained from the "tap" of an hotel and found to be 39.6° under proof. In the proceedings which followed, the person in charge of this part of the premises admitted in evidence that the remains in a used glass of what was believed to be whisky was poured into the whisky bottle. The case against the licensee was dismissed, the agent, however, was fined £2 for aiding and abetting.

A sample of Borax was found to contain twenty-four parts per million of arsenic. In this case the vendor was warned.

Table showing the number of samples taken for analysis during the year 1927 :—

Sample	Number	Genuine	Reported Against	Remarks	Result of Proceedings
1st Quarter—					
Milk	94	90	4	18 per cent. deficient in fat. Deficiency caused by failing to mix the milk of the herd before sale. Further sample taken and found genuine.	
				11 per cent. deficient in fat. Vendor warned for failing to keep the milk stirred when on the round. Further sample taken.	
				11 per cent. deficient in fat. Further sample taken from the producer at place of delivery ; see below.	
				12 per cent. deficient in fat. Taken in connection with the above. Informal tests showed one cow giving milk with the low fat content of 2.1 per cent. This cow was withdrawn from the herd and subsequent samples proved satisfactory.	
2nd Quarter—					
Milk	80	73	7	15 per cent. deficient in fat. An "appeal to the cow" followed. Deficiency attributed to faulty milking. Vendor warned.	
				8 per cent. deficient in fat. Informal tests taken from supplier showed the milk to be deficient in fat. The farmer was interviewed and later samples were satisfactory.	
				14 per cent. deficient in fat ; see next below.	
				14 per cent. deficient in fat.	
				15 per cent. deficient in fat.	
				These two samples were taken from the producer of above at time of delivery. Two other samples from different churns were up to the standard. "Appeal to the cow" samples were taken, one of which was 12 per cent. deficient in fat. Poor milkers were eliminated from the herd. Later, samples were taken and found genuine.	

Sample	Number	Genuine	Reported Against	Remarks	Result of Proceedings
2nd Quarter (contd.) — Milk				8 per cent. deficient in fat. Deficiency attributed to fail- ing to mix the milk of the herd before sale. A further sample was taken.	
				7 per cent. deficient in fat. A further sample was taken.	
Skimmed Milk	1	1			
Separated Milk	2	2			
3rd Quarter— Milk	82	80	2	22 per cent. deficient in fat. A calf had been allowed to suck the cow after only a portion of the milk had been drawn off for sale. The vendor was warned and a further sample was satisfactory.	
				12 per cent. deficient in fat. Deficiency attributed to faulty milking. A subse- quent sample shewed more than 3 per cent. of fat.	
Skimmed Milk	1	1			
Separated Milk	1	1			
4th Quarter— Milk	68	68			
Skimmed Milk	3	3			
Separated Milk	1	1			
Condensed Milk	1		1	An informal sample. Con- tained 25.9 per cent. instead of 26 per cent. of milk solids.	

In addition to the above 4 "Appeal to the cow" samples were submitted.



## Other Articles (whole year).

Sample	Number	Genuine	Reported Against	Remarks	Result of Proceedings
Butter	17	16	1	0.65 per cent. excess water. Vendor warned and further samples taken.	
Pork					
Sausages	15	11	4	0.60 per cent. Boric acid. 0.16 per cent. Boric acid. 0.42 per cent. Boric acid.	Fined 10s. Fined 15s. Case dismissed on payment of 4s. costs.
				0.18 per cent. Boric acid.	Ditto.
Beef					
Sausages	8	7	1	0.20 per cent. Boric acid.	Ditto.
Pork Pie	9	9			
Potted Meat	3	3			
Meat Paste	3	3			
Fish Paste	4	4			
Margarine	10	8	2	0.40 per cent. excess water. 0.60 per cent. excess water.	
				These samples were taken on different dates from the same trader and two other samples taken at the same time were genuine. The amount of water in excess of the permitted quantity being very small, the vendor was warned.	
Whisky	3	2	1	7 per cent. excess water (39.6° u.p.)	Case against Principal dis- missed, Ag- ent fined £2 for aiding & abetting.
Vinegar	2	2			
Self-raising Flour	2	2			
Jam	3	3			
Marmalade	2	2			
Lemon Curd	1	1			
Lemon Squash	1	1			
Pressed Meat	2	2			
Cream	1	1			
Lard	1	1			
Coffee	1	1			
Ground					
Almonds	1	1			
Ground Rice	1	1			
Pickles	1	1			
Mayonnaise	1	1			
Salad Cream	1	1			
Fruit Salad	1	1			
Tea Cake					
Mixture	1	1			
Borax	1		1	Contained 24 parts per million of arsenic. Vendor warned.	

## PUBLIC HEALTH (PRESERVATIVES ETC. IN FOOD) REGULATIONS.

A number of Meat and Fish Foodstuffs were procured during the year, and in five samples of sausages, boric acid was found. Proceedings were taken and in three instances, these being the first cases to be instituted under the Regulations, the cases were dismissed on the payment of costs. In the other two cases fines of 15s. and 10s. respectively were imposed.

## CONDENSED MILK REGULATIONS.

During the year a number of tins of condensed milk were examined in order to ascertain that the provisions of the Regulations as to labelling were complied with. One informal sample was submitted for analysis, this contained only 25.9 per cent. instead of 26 per cent. of milk solids.

## DRIED MILK REGULATIONS.

No samples were taken under these Regulations during the year.







CAUSES OF DEATH IN ADMINISTRATIVE AREAS.

URBAN DISTRICTS.																													RURAL DISTRICTS.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																					
CAUSES OF DEATH.		Kettering U.D.		Brackley M.B.		Daventry M.B.		Desborough U.D.		Finedon U.D.		Higham Ferrers M.B.		Irthlingborough U.D.		Oundle U.D.		Raunds U.D.		Rothwell U.D.		Rushden U.D.		Wellingborough U.D.		Burton Latimer U.D.		Aggregate of U.D.'s		Brackley R.D.		Brixworth R.D.		Crick R.D.		Daventry R.D.		Easton-on-the-Hill R.D.		Gretton R.D.		Hardingstone R.D.		Kettering R.D.		Middletown Cheney R.D.		Northampton R.D.		Oundle (part of) Northants) R.D.		Oxendon R.D.		Potterspury R.D.		Thrapston (part of) Northants) R.D.		Towcester R.D.		Wellingborough R.D.		Aggregate of R.D.'s.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.





TABLE XVIII.  
CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF NORTHAMPTON, 1927.

CAUSES OF DEATH.	Sex.	AGGREGATE OF URBAN DISTRICTS										AGGREGATE OF RURAL DISTRICTS									
		All Ages	0	1	2	5	15	25	45	65	75	All Ages	0	1	2	5	15	25	45	65	75
ALL CAUSES.....	M.	596	40	4	9	13	28	80	158	124	140	707	46	14	8	14	26	59	134	187	219
	F.	578	39	6	7	9	29	66	125	130	167	658	34	4	4	17	23	59	131	139	247
1 Enteric fever .....	M.	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..
	F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
2 Small-pox .....	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
3 Measles .....	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
4 Scarlet fever.....	M.	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
5 Whooping cough .....	M.	1	1	..	..	..	..	..	..	..	..	2	1	1	..	..	..	..	..	..	..
	F.	2	1	..	1	..	..	..	..	..	..	9	4	1	3	1	..	..	..	..	..
6 Diphtheria .....	M.	2	..	..	..	2	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..
	F.	5	1	..	2	2	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..
7 Influenza .....	M.	42	3	..	..	..	3	3	12	10	11	55	1	1	1	..	3	5	10	20	14
	F.	41	2	..	1	1	..	4	11	11	11	38	1	..	..	1	1	6	10	9	10
8 Encephalitis lethargica .....	M.	2	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..
	F.	2	..	..	..	..	..	1	..	1	..	1	..	..	..	..	..	..	1	..	..
9 Meningococcal meningitis .....	M.	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..
	F.	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..
10 Tuberculosis of respiratory system	M.	52	..	..	1	..	8	27	13	2	1	30	..	..	..	1	7	15	6	1	..
	F.	39	..	..	..	..	17	17	5	..	..	41	..	..	..	5	11	17	7	1	..
11 Other tuberculous diseases .....	M.	11	2	1	..	3	1	3	1	..	..	4	..	..	..	..	1	2	..	1	..
	F.	10	1	1	1	..	..	4	3	..	..	5	..	..	..	3	1	1	..	..	..
12 Cancer, malignant disease .....	M.	70	..	..	..	..	..	2	32	20	16	76	..	..	..	..	1	3	19	33	20
	F.	78	..	..	..	..	1	9	26	26	16	96	..	..	..	..	..	2	41	26	27
13 Rheumatic fever .....	M.	4	..	..	..	..	..	1	2	1	..	3	..	..	..	2	..	..	1	..	..
	F.	1	..	..	..	1	..	..	..	..	..	2	1	..	..	..	1	..	..	..	..
14 Diabetes .....	M.	4	..	..	..	..	..	1	2	1	..	11	..	..	..	..	1	1	3	5	1
	F.	8	..	..	..	..	..	1	3	4	..	11	..	..	..	..	2	1	2	2	4
15 Cerebral hæmorrhage, &c. ....	M.	32	..	..	..	1	..	1	6	12	12	43	..	..	..	..	..	..	9	12	22
	F.	41	..	..	..	..	..	..	7	10	19	37	..	..	..	..	..	..	11	11	15
16 Heart disease .....	M.	77	..	..	..	..	..	6	17	30	24	106	..	..	..	..	1	3	26	40	36
	F.	111	..	..	..	1	6	10	30	31	33	109	..	..	..	1	..	8	21	34	45
17 Arterio sclerosis .....	M.	29	..	..	..	..	..	1	8	4	16	30	..	..	..	..	..	..	1	12	17
	F.	23	..	..	..	..	..	..	3	5	15	26	..	..	..	..	..	..	2	6	18
18 Bronchitis.....	M.	32	3	..	..	..	..	..	5	11	13	47	2	2	..	1	..	1	3	11	27
	F.	23	1	..	..	..	..	..	3	7	12	58	4	..	..	..	..	..	3	14	37
19 Pneumonia (all forms) .....	M.	31	5	3	2	2	1	4	9	2	3	26	5	3	1	..	1	6	5	3	2
	F.	26	4	2	2	1	..	5	5	4	3	17	2	2	..	..	..	2	2	6	3
20 Other respiratory diseases .....	M.	12	..	..	1	..	1	1	7	..	2	8	..	..	1	..	..	1	1	2	3
	F.	8	1	..	..	..	..	1	4	..	2	7	..	..	..	..	..	..	2	3	2
21 Ulcer of stomach or duodenum ..	M.	9	..	..	..	..	1	2	4	2	..	10	..	..	..	..	..	3	5	1	1
	F.	3	..	..	..	..	..	..	1	..	2	1	..	..	..	..	..	..	1	..	..
22 Diarrhœa, &c. ....	M.	3	1	..	..	..	1	..	..	1	..	3	1	1	..	1	..	..	..	..	..
	F.	4	1	1	..	..	..	..	..	2	..	7	1	..	..	1	..	1	2	2	..
23 Appendicitis and typhlitis .....	M.	4	..	..	1	..	..	..	3	..	..	2	..	..	1	..	1	..	..	..	..
	F.	2	..	..	..	..	..	1	1	..	..	1	..	..	..	..	1	..	..	..	..
24 Cirrhosis of liver .....	M.	1	..	..	..	..	..	1	..	..	..	4	..	..	..	..	..	..	1	3	..
	F.	1	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..
25 Acute and chronic nephritis .....	M.	16	..	..	..	2	2	3	4	1	4	13	..	..	..	..	..	..	2	9	2
	F.	11	..	..	..	..	1	1	4	2	3	13	..	..	..	1	..	..	4	4	4
26 Puerperal sepsis .....	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	3	..	..	..	..	..	3	..	..	..	5	..	..	..	..	1	4	..	..	..
27 Other accidents and diseases of pregnancy and parturition ....	M.	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
	F.	4	..	..	..	..	1	3	..	..	..	4	..	..	..	..	..	4	..	..	..
28 Congenital debility and malformation, premature birth .....	M.	19	19	..	..	..	..	..	..	..	..	28	27	1	..	..	..	..	..	..	..
	F.	26	25	..	..	1	..	..	..	..	..	18	18	..	..	..	..	..	..	..	..
29 Suicide .....	M.	12	..	..	..	..	..	3	7	2	..	8	..	..	..	..	1	3	2	2	..
	F.	1	..	..	..	..	..	..	1	..	..	3	..	..	..	..	..	1	1	1	..
30 Other deaths from violence .....	M.	18	2	..	1	1	4	6	1	..	3	43	2	..	2	4	4	11	15	4	1
	F.	14	1	1	..	..	1	2	1	3	5	8	2	..	..	1	2	..	1	..	2
31 Other defined diseases .....	M.	104	4	..	3	2	5	15	18	22	35	147	7	4	1	5	4	5	20	28	73
	F.	87	1	..	..	2	2	3	16	18	45	134	1	1	1	2	2	10	19	18	80
32 Causes ill-defined or unknown ..	M.	8	..	..	..	..	..	..	5	3	..	5	..	..	..	..	..	..	5	..	..
	F.	3	..	..	..	..	..	1	1	1	..	5	..	..	..	1	..	1	1	2	..





DISTRICTS	Number of Inspections				Nuisances under the Public Health Acts, including those specified in Sections 2, 3, 7, and 8 of the Factory & Workshop Act, 1901, as remediable under the Public Health Acts.							Offences under the Factory and Workshop Acts.		
	Factories (including Factory Laundries)	Workshops (including Workshop Laundries)	Workplaces (other than Out-workers' premises)	Want of Cleanliness	Want of Ventilation	Overcrowding	Want of Drainage of Floors	Other Nuisances	Sanitary Accommodation			Illegal Occupation of Underground Bakehouse (S.101)	Other offences (excluding offences relating to out-work and offences under Sections mentioned in the Schedule to the Ministry of Health (Factories and Workshops, Transfer of Powers) Order, 1921).	
									Insufficient	Unsuitable or Defective	Not separate for sexes			
URBAN.														
BRACKLEY (Borough) .. ..	4	16	..	..	..	..	..	..	..	..	..	..	..	..
DAVENTRY (Borough) .. ..	37	103	..	..	..	..	..	..	..	..	..	..	..	..
HIGHAM FERRERS (Borough)	20	10	7	2	..	..	..	..	2	(a)4	..	..	..	..
BURTON LATIMER .. ..	..	19	..	1	..	..	..	5	..	..	..	..	..	..
DESBOROUGH .. ..	48	9	..	3	..	..	..	..	..	4	..	..	..	..
*FINEDON .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
IRTHLINGBOROUGH .. ..	51	8	6	(b)19	2	..	..	2	..	2	..	..	..	..
(c) KETTERING .. ..	160	48	..	4	..	..	..	..	..	2	..	..	..	..
*Oundle .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
RAUNDS .. ..	32	25	10	2	..	..	..	..	..	1	..	..	..	1
*ROTHWELL .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*RUSHDEN .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
*WELLINGBOROUGH .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Combined Urban Districts ..	352	238	23	31	2	..	..	7	2	13	..	..	..	1
RURAL.														
BRACKLEY .. ..	..	7	..	..	..	..	..	..	..	..	..	..	..	..
BRIXWORTH .. ..	2	3	..	3	..	..	..	..	..	..	..	..	..	..
CRICK .. ..	..	28	..	12	..	..	..	..	..	..	..	..	..	..
DAVENTRY .. ..	3	53	16	53	..	..	..	..	..	1	..	..	..	..
*EASTON-ON-THE-HILL .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
GRETTON .. ..	5	10	..	..	..	..	..	..	..	..	..	..	..	..
HARDINGSTONE .. ..	..	4	..	..	..	..	..	..	..	..	..	..	..	..
KETTERING .. ..	6	45	5	4	..	..	..	..	1	..	..	..	..	..
MIDDLETON CHENEY .. ..	Nil.	..	..	..	..	..	..	..	..	..	..	..	..	..
NORTHAMPTON .. ..	4	5	12	..	..	..	..	..	..	..	..	..	..	..
Oundle .. ..	..	53	..	..	1	..	..	..	..	..	..	..	..	..
*OXENDON .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
POTTERS PURY .. ..	2	2	..	..	..	..	..	..	..	..	..	..	..	..
THRAPSTON .. ..	44	125	..	2	..	..	..	5	..	2	..	..	..	..
TOWCESTER .. ..	..	29	11	12	..	..	..	..	..	..	..	..	..	..
*WELLINGBOROUGH .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Combined Rural Districts ..	66	364	44	86	1	..	..	5	1	3	..	..	..	..
Administrative County ..	418	602	67	117	3	..	..	12	3	16	..	..	..	1

\* No Table, or detailed information, received from these Districts  
(a) Notices received from H.M. Inspector ; conditions remedied.  
(b) One case was referred to H.M. Inspector.  
(c) Complete statistics not available owing to destruction of Records by fire.

INSPECTIONS.

In respect of Factories, two written notices were issued in Higham Ferrers Borough, six at Desborough, twenty-three at Irthlingborough, two at Raunds and five in the Thrapston Rural District.  
In respect to Workshops, four written notices were issued in Higham Ferrers Borough, one at Desborough, three at Irthlingborough, and in the Rural Districts as follows :— Brixworth 2, Crick 12, Kettering 4, Oundle 1, Thrapston 7, Towcester 1.  
In respect of Workplaces, two written notices were issued in Higham Ferrers Borough and one at Irthlingborough.  
The whole of the defects as enumerated above, with one exception, were remedied.





